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THE UNIVERSITY OF ALBERTA
JOB SATISFACTION AMONG PHYSICAL EDUCATORS AT ENGLISH-
SPEAKING CANADIAN UNIVERSITIES
BY
T. LAWRENCE MALONEY

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
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DEPARTMENT OF PHYSICAL EDUCATION
EDMONTON, ALBERTA
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THE UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and
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Physical Educators at English-Speaking Canadian
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ABSTRACT

The study was conducted to investigate three major areas of interest concerning job satisfaction in physical education departments, schools, and faculties in English-speaking Canadian universities. There were three central concerns: 1) the relationship between satisfaction and preferred-perceived discrepancy; 2) the relationship between global and specific measures of satisfaction; and 3) the relationship between selected demographic and biographic variables and satisfaction.

Two questionnaires were designed for the study. The Chief Administrator's Questionnaire was designed to obtain demographic information about university physical education organization. The Work Environment Questionnaire was designed to obtain information from full-time academic staff members in physical education on several different measures: 1) biographical information; 2) satisfaction scores on global and job-specific aspects of the work environment; and 3) preferred-perceived and employer-employee discrepancy scores on job-specific aspects of the work environment.

The questionnaires were mailed to thirty-two universities in Canada which offered degree programs in physical education. A 59.9 percent return was realized. The available data was analysed using nonparametric statistics -- the Kendal and Spearman rank order correlation procedures, and the chi square tests of goodness of fit and independence. From the data analysis a number of significant results were discovered.

Satisfaction levels for job-specific aspects of the work environment were significantly related to preferred-perceived

and employer-employee discrepancy levels -- that is, as the discrepancy between what one preferred and what one saw as existing in the work environment decreased, satisfaction increased.

Correlations on these measures between individuals tended to be lower than correlations within individuals over fifty-one aspects. This suggested individual differences were operating in the perception of satisfaction and discrepancy. While correlations were consistently significant their absolute values were relatively low and as such did not account for a high percentage of variance in satisfaction levels.

Satisfaction with the job as a whole was consistently and significantly related to satisfaction with the job-specific aspects of the work environment. Correlations from this analysis were low but served to indicate certain aspects of the work environment were more related to satisfaction with the job as a whole than were others. The significant correlations from these analyses also tended to support the contention that the instrument of measurement was valid.

A number of significant relationships resulted from the analyses of demographic and biographic variables in relations to satisfaction levels. Satisfaction appeared to increase as age increased up to the age of fifty-five. After age fifty-five there was an indication that satisfaction may decrease. Professors and associate professors were found to be more satisfied than individuals with other professorial ranks, and lecturers and instructors were found to be least satisfied. Bachelors degree program enrolment was assumed to be an indication of size of the physical education organization. As such individuals from institutions with enrolment

up to 300 and over 600 students were significantly more satisfied than were individuals from other institutions in so far as several job-specific aspects were concerned. Finally, males were found to be more satisfied than females on a number of different measures. In view of the fact that the majority of females were in the lower age groups and lower professorial categories, this finding might have been expected.

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CHAPTER I

THE PROBLEM

Since the inception of the first professional, degree granting school of physical education in Canada at Toronto University in 1941 (Cosentino and Howell, 1971) similar such programs have increased in number at a very rapid rate. Meagher (1965: 69) reported the existence of seventeen such programs in Canada as of 1964 while today there are thirty-two. The proliferation of institutions offering degrees in physical education was paralleled by a similar increase in student population. From 1957 to 1965 the enrolment in bachelor degree programs in physical education increased from 565 to 2,296. (Meagher 1965: 78) Today there are at least 10,000 students enrolled in programs of professional preparation in physical education.

With the increase in student enrolment and institutions offering such programs a move toward variety and innovation in programs has gained momentum. At present, nine institutions offer masters degree programs, and while only one program leading to a doctorate degree in physical education exists, several are in the planning or approval stages.

As these programs increase in numbers there are many ramifications related to the need for new facilities and support staff, the need to provide more funds for the operation of the new programs, and the need for more qualified teaching staff. In general the complexity of the physical education organization increases and the existence of individuals within such organizations becomes more complicated.

2

If it is to be assumed that the performance of the members of an organization is, in part, related to the successful existence of that organization, it can then be assumed that research concerning man's relationship to the organization and his existence in the organization is also important. Research concerning physical educators within university physical education organizations then becomes a legitimate topic for investigation.

I - THE UNIVERSITY ORGANIZATION

Blau and Scott (1962) have attempted to differentiate between social and formal organizations and in doing so emphasized the following: the goals, rules and status structure of the social organization have emerged spontaneously through social interaction whereas the goals, rules and status structure of the formal organization have been "consciously designed a priori to anticipate and guide interaction and activities." (Blau and Scott, 1962: 5) Common to all formal organizations is the fact that they are designed to accomplish certain goals. The industrial organization, designed to manufacture a given amount of a product at a specified profit, is an obvious example.

However, the university, as a formal organization, in the view of many authors, lacks the certainty of purpose that many other formal organizations possess. Oncken (1971: 1-2) suggested universities differed from the common concept of formal organization because of four characteristics: 1) goals are not clearly defined; 2) products are somewhat intangible; 3) the consumer has little influence; 4) the decision making process within the organization is diffused more than hierarchical in nature. Ikenberry (1972: 23) also suggested there was a difference and pointed specifically to two characteristics that

differentiate the academic organization from the production oriented organization: 1) academic organizations are unable to operationally define their goals: 2) academic organizations are essentially decentralized in reference to authority structures. Finally, Shull has suggested: "The objectives of higher learning not only espouse plurality, but also refer to broad genotype functions - those which allow for variable interpretations and heuristic definitions of purpose." (Shull, 1972: 52)

The lack of clarity of goals seems to be a point of agreement between the aforementioned authors and also seems to be a justifiable characteristic of universities according to Bonneau and Corry:

...there is rough general agreement on an approved list of purposes: the main divisions of the list are teaching (the transmission of knowledge and culture), research (the discovery and integration of new knowledge), and service to the community.

But this is not where the real rub comes. It comes over the issue to whether there are priorities in the work of the universities, and if so what they are. Here, there are marked differences of view both within the university and between the public and the professors. (Bonneau and Corry, 1972: 15)

Hodge and Johnson (1970: 120-121) have suggested that organizations have a responsibility to operate efficiently and effectively but this cannot be achieved if one or more membership groups become dissatisfied. Assuming this to be an accurate assessment, then the marked differences in priorities noted by Bonneau and Corry may prove to be crucial in determining the degree of success a university organization might achieve, particularly in the event where differences in priorities are found between employer and employee, and where these differences result in non-productive conflict.

The special case of the university as an organization has

received further comment from Parsons:

The most important things a typical individual does do not concern the interests of the organization as a whole in any very direct sense. They concern his teaching relations with a small minority of the student body, the pursuit of his own research interests which are inevitably in only one of the many fields of knowledge involved in the university, and his active collaboration with a small circle of colleagues. (Parsons, 1971: 489)

If the academic's concerns are not directly related to organizational interests it would not be too risky to question the existence of the organization as being viable in view of the possible lack of common goals.

In terms of the clarity of work roles and job descriptions, and to some extent the definition of priorities, the university organization might be compared with an engineering firm. In a study of an engineering firm Wood and LeBold (1970) referred to five specific departments: research, development, design, operations and engineering management. Contrast these specific job assignments with the work world of a university academic who is surrounded by teaching, research, community involvement, and in the case of many Physical Education academics, coaching responsibilities, club and supervisory activities.

The possible lack of clarity in terms of the priority of goals in a university department may create, within the individuals working in such an atmosphere, an unclear and divergent set of expectations viz: a set of expectations which do not allow individuals to clearly operationalize their efforts within their work situations on a hierarchy of importance basis.

The result of such diversity of impinging expectations, in many cases, leads to incongruity of priorities between the organization and the individual. With such incongruity logically

follows conflict of greater or lesser degree. This has been proposed by Shepherd:

Differences in orientations create points of tension and conflict. Often the tension and conflict remains latent and is expressed largely by isolation and in feelings and expressions of such things as pride and superiority. Sometimes, however, the tension and conflict become manifest and create a barrier to cooperation. (Shepherd, 1961: 79)

A great deal of organizational research, of one form or another, has used the individual-organization conflict as a central theme. As one sector of the total, recent job attitude (job satisfaction) studies have employed a discrepancy model to determine levels of satisfaction. Measures of what the individual perceives as being present (in a multitude of job aspects) are compared with what the individual desires and provides the basis for defining job satisfaction levels.

While the bulk of such research has been conducted in industrial settings, there is need for similar research in academic institutions. Administrators would do well to know the extent of the discrepancy between what their employees want and what their employees perceive as existing in their work environment. Furthermore, knowledge of this type of discrepancy and how it is related to such other variables in the work environment as age, sex, academic rank, and years of experience may prove to be very useful in producing a more effective and efficient academic organization.

II - STATEMENT OF THE PROBLEM

The purpose of the study was concerned with three (major) areas of interest:

- A. What is the relationship between self-reported measures of satisfaction and self-reported measures of discrepancy with what one prefers and what one perceives as existing with specific aspects of the work situation?
- B. What is the relationship between self-reported measures of satisfaction with specific aspects of the work situation and self-reported measures of satisfaction with more general areas of work and with the job as a whole?
- C. What is the relationship between self-reported levels of satisfaction and various selected biographical variables?

III - IMPORTANCE OF THE PROBLEM

Any organization has an obligation to operate as efficiently and effectively as practicable in converting the resources available to it into the product or services desired by its consumers. (Hodge and Johnson, 1970: 120-121)

It (the organization) must suffer some reduction of success if one or more membership groups become dissatisfied. (Hodge and Johnson, 1970: 121)

According to Vroom (1965: 186) variability in job satisfaction results in a number of consequences for the organization which were stated as probability of resignation, absences, and accidents. Subsequently, Quinn and Kahn (1967: 458) have suggested that the effective functioning of an organization is dependent on three behaviors as performed by individuals: 1) joining and staying, 2) dependable role performance, and 3) innovative or spontaneous behaviour. Logically, job satisfaction becomes a factor which may be of great importance in terms of the effective functioning of organizations. Mumford (1972: 185) further supported the above by stating job satisfaction was necessary as part of the requirements of

a healthy organization and that dissatisfaction with one's job will be manifested in terms of staff members looking for other work, staff members taking more time off, and staff members becoming disinterested which in itself will lead to a reduction in production and efficiency. (Mumford, 1972: 68)

Smith, Kendall, and Hulin (1969: 2) have stated that in general it is important in itself to understand the sources of satisfaction and dissatisfaction. Furthermore, it is important to realize that many organizational factors "affect the feelings and attitudes, and in turn, the behavior of the employees." (Smith, Kendall and Hulin, 1969: 2)

Specific to behavior of employees, three phenomena have received research attention in relation to job satisfaction: production, absenteeism, and turnover. While the contemporary view held is that production is more likely to be responsible for satisfaction and not the reverse, there is evidence that absenteeism and turnover are negatively related to satisfaction, at least in industrial settings. (Bass, 1965; Brayfield and Crockett, 1969; Lawler and Porter, 1969) On the basis of the assumption that a certain degree of employment stability and a minimum degree of absenteeism are valuable to all organizations, including the university organization, one might further assume that employee satisfaction or dissatisfaction and their causes and correlates should be a concern of administrators in the university setting.

In regard to production, however, Lawler and Porter (1969) have suggested satisfaction is due to performance and ensuing extrinsic and intrinsic rewards derived from performance. The

individual may perceive the organization as being a hindrance, by way of internal policies or goal incongruence, to his successful performance. This perception may engender a non-productive attitude which in turn would produce a mediocre performance, few rewards, and subsequently little, if any, satisfaction.

Finally, Daniel has suggested that as man spends a considerable part of his life in the realm of work and work environment, "the study of job satisfaction should add to the 'know how' of tapping human potentials more efficiently with greater realization of higher human needs for a larger number of people." (Daniel, 1971: 14)

The concept of a "perceived-preferred discrepancy" will be discussed later but for the present it should be emphasized that it is believed that the discrepancy between what one prefers and what one perceives he is receiving is primarily responsible for satisfaction and dissatisfaction. Emerging specifically from the study, it may be useful for the administrator to know which are associated with satisfaction and dissatisfaction: 1) discrepancy between what one perceives to exist and what one prefers, or 2) discrepancy between what one prefers and what one perceives is preferred by the employer. Furthermore, it would seem to be valuable to determine whether satisfaction-dissatisfaction as a function of these discrepancies varies according to biographical and demographic variables.

VI - DEFINITION OF TERMS

Thorough discussion of the major concepts to be employed in the study are included in a later chapter which deals with the review of the literature. The following section is included to define more commonly used terms in this study.

For the purpose of this study the functions of full-time academic faculty members of professional schools of physical education have been divided into four categories (coaching, community involvement, research and teaching) with definitions applying as stated below.

Coaching: refers to activity as head coach or assistant coach of one or more intercollegiate teams sponsored by the university.

Community Involvement: refers to participation as a member or chairman of current committees of Faculties (or schools, or departments) of physical education and universities, and also refers to similar participation in professional physical education organizations at local, provincial, or national levels.

Research: refers to empirical and library investigatory activities that are not directly related to, nor necessary for, the completion of the teaching, coaching, and policy formulation aspects of the job.

Teaching: refers to activities relating directly to student programs and classes.

Full-Time Academic Staff Member: For the purpose of this study a full-time academic staff member is a staff member who has tenure or who has a position leading to tenure with no contractual indication of an employment termination date. This classification does not include chief administrators such as deans, directors, department chairmen, nor does it include administrative officers. Individuals classified as sessional appointments have also been excluded from the study due to the very unstable nature of their term of employment.

Demographic Variables: As defined by the dictionary¹ demography refers to the "study of peoples or communities in regard to their social relations and institutions, especially as compared with other communities; study of size, density, composition of human populations." For the purpose of this study and in keeping with the above definition, demographic variables are defined as those measurable characteristics which describe each professional school of physical education: number of years in operation, years the chief administrator has been in his present position, number of full-time academic staff members, types of programs offered, number of students enrolled in programs.

Biographic Variables: As defined by the dictionary² biography refers to "the history of the life and character of a particular person." For the purpose of this study and in keeping with the above definition biographic variables are defined as those measurable characteristics which describe each of the full-time academic staff members involved in the study: age, sex, degrees held, years of university employment with academic rank, years of employment at present job, tenured or not tenured, job responsibilities, academic rank, area of academic interest.

Value (Preference): Rand (1966: 5) and Branden (1966: 5) have both defined values in a brief manner as that which one acts to gain or keep. Branden (1966A: 1) has also suggested the concept of value pertains to the relationship of some aspect of reality to man and that

¹The Webster Encyclopedic Dictionary of the English Language (Consolidated Book Publishers, Chicago, 1969).

²Ibid.

if man views something as good for him then it is also valued by him.

For the purpose of this study the latter view offered by Branden was deemed most applicable - that is, the study was concerned with the relationship of many individual aspects of the academic staff member's work to himself, and his perception of how he and others value those particular aspects. Inherent in such thought is the fact that evaluation, as a process, is a prerequisite to the determination of the status of the relationship. One must measure or evaluate what he desires in comparison with some other standard in order to evaluate his position.

Value has been defined as that which one desires to gain, get, or keep. In view of this simplified definition the word 'preference' has been deemed synonymous with 'value' and the word 'prefer' has been used in the research instrument as a term believed to be more readily understandable than the word 'value' and will be used throughout the study.

Preferred-Perceived Discrepancy: For the purpose of this study preferred-perceived discrepancy was conceived as the difference one perceives between what one prefers and some other standard in so far as numerous aspects of the work environment are concerned. The concept of preferred-perceived discrepancy is a modification, in terminology only, of Locke's (1969) value-percept discrepancy concept. In view of the decision to define value as a preference the change in wording was made without any intention of changing the essence of the concept of discrepancy as discussed by Locke. (1969: 316)

In the present study two specific preferred-perceived discrepancies have been defined:

- A. Actual-Preferred Discrepancy: refers to the perceived (by the academic staff member) discrepancy between what one prefers and what one perceives as existing in so far as numerous aspects of the work environment are concerned;
- B. Employer-Employee Discrepancy: refers to the perceived (by the academic staff member) discrepancy between what one prefers and what one perceives as his employer's preference in so far as numerous aspects of the work situation are concerned.

Discrepancy Score: For the purpose of this study a discrepancy score was defined as that measure of perceived difference between what the academic staff member prefers and what exists, or what the staff member perceives to be preferred by the employer, related to various aspects of the work environment are concerned. This score was derived from responses according to a five point Likert-type scale as shown below:

<u>Much Less Than What I Prefer</u>	<u>Less Than What I Prefer</u>	<u>No Difference</u>	<u>More Than What I Prefer</u>	<u>Much More Than What I Prefer</u>
1	2	3	4	5

Job Satisfaction: For the purpose of this study Locke's (1969: 316) definition of job satisfaction was used as it was based on the previously stated concept of values (preferences). "Job satisfaction is the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's values." (Locke, 1969: 316) In so far as this study was

concerned the term 'job' as contained in the above definition was taken to mean either the job as a whole or specific aspects of the job, or both.

Job Dissatisfaction: "is the unpleasurable emotional state resulting from the appraisal of one's job as frustrating or blocking the attainment of one's job values or as entailing disvalues." (Locke, 1969: 316) Again, 'preference' was taken to be synonymous with 'value'.

Satisfaction Score: For the purpose of this study satisfaction score was defined as that numerical estimation (by the responding staff member) on a six point Likert-type scale which indicated the respondent's feeling of satisfaction or dissatisfaction with particular aspects of the work environment and with the work environment as a whole. The satisfaction-dissatisfaction scale is illustrated below:

<u>Very Satisfied</u>	<u>Quite Satisfied</u>	<u>Slightly Satisfied</u>	<u>Slightly Dissatisfied</u>	<u>Quite Dissatisfied</u>	<u>Very Dissatisfied</u>
6	5	4	3	2	1

V - DELIMITATIONS

There were two major delimitations which should be noted.

1. A French translation of the research instruments was developed and sent to four French-speaking universities in Canada and posted at a later date than the English version. However, due to a national postal strike the questionnaires sent to the French universities were considerably late in reaching the proposed respondents. As a result only a very small percentage return was realized. In view of this small percentage return it was decided

to eliminate the returned questionnaires (from French-speaking universities) from the study, thus using only the questionnaires returned from English-speaking universities at an earlier date.

2. As defined previously, 'full-time academic staff member' does not include chief administrators, nor does it include administrative officers. It was decided that because of the different nature of the work of these two categories of individuals (especially when considering the delineation of the four major work functions) the inclusion of administrators and administrative officers would introduce unnecessary confounding and confusing data.

VI - LIMITATIONS

The elimination of French speaking universities from the sample reduces the sample to less than total and therefore generalizations from the results will be applicable only to the population in English speaking universities.

Not all aspects of the work environment and work role of staff members were investigated. This may have reduced the usefulness of the results to some extent. However, fifty-two aspects of the work environment were investigated - this was deemed sufficient for the purpose of the study.

In terms of methodology, the limitations and restrictions inherent in the questionnaire method of research were accepted.

Finally, it should be noted that the data derived from responses to questions nine through fourteen in the major questionnaire was deemed to be no more than ordinal in nature. Because the data is not at least interval in nature a nonparametric statistical model was used in the analysis.

CHAPTER II

REVIEW OF THE LITERATURE

I - THE INDIVIDUAL AND THE ORGANIZATION

The relationship between the individual and the organization in which the individual functions has been a concern of organizational theorists for some time. The proponents of scientific management and the proponents of the human relations movement took opposing views of this relationship - the former held the organization and its efficiency as most important while the latter put major emphasis on the happiness and satisfaction of the individual. Typically, it has been thought that the concern over such a conflict emanated from industrial factory settings. However, "this conflict is merely one aspect of what has variously been characterized as the conflict between individual and society, individual and environment, desire and reality, id and super ego." (Strauss, 1968: 264) and as a result it permeates all organizations, not just the industrial organization.

One of the most frequently quoted discussions on organizations and individuals was written by Chester I. Barnard (1938) in which he spoke at length on systems of cooperation. He made a distinction between two basic types of behaviors that are exhibited with reference to the treatment of individuals: 1) persons are objects to be manipulated, or 2) persons are subjects to be satisfied. (Barnard, 1938: 40) He further emphasized the possibility of conflict between individual and organization which may stem from a firm belief in either of the above two approaches:

A formal system of cooperation requires an objective, a purpose, an aim. Such an objective is itself a product of cooperation and expresses a cooperative discrimination of factors upon which action is to be taken by the cooperative system. It is important to note the complete distinction between the aim of the cooperative effort and that of the individual. (Barnard, 1938, 42-43)

In speaking of a distinction between the cooperative system (in essence the organization) and the individual, Barnard reaffirmed the fact that congruency of objectives, purposes, aims, goals does not necessarily exist between the organization and the individual.

Further illustrative of the possible conflict between individual and organization is the model of dimensions of behavior in a social system as presented by Getzels and Guba. (1957)

Essentially, these two theorists have suggested that there are two major dimensions of a social system: 1) the nomothetic (institution, role, role expectation components) and 2) the idiographic (individual, personality, need-disposition components). There is interaction between these two dimensions as the social system functions and a common result of this interaction is conflict. The major source of the conflict according to Getzels and Guba is the interaction between the individual's need dispositions or preferences and the role expectations as stated by the institution or organization. In other words, organizations will define expectations for role performance on the basis of a need for the most efficient attainment of the organization's goals. In many cases these expectations are not compatible or are incongruent with the needs or preferences of the individuals who occupy the roles. This incongruency has implications for satisfaction: "In terms of our model, satisfaction is a function of the congruence of institutional expectations with individual

need-dispositions." (Getzels and Guba, 1957: 435)

Getzels and Guba speak of 'expectations' in terms of what actions are needed to perform the roles within an institution in an appropriate manner. However, without contradicting the basic concepts in their individual-institution model, it is entirely possible to speak of 'expectations' in terms of the individual's perceptions of what is required in order that he might fill the roles to which he has been assigned or to which he sees himself as having been assigned. In this sense his expectations provide standards of measurement with which evaluations are made. Conflict arises when his evaluations result in a perceived incongruence. Subsequently, satisfaction or dissatisfaction may develop.

Concerned with the same problem Argyris (1957) began his discussion with an analysis of the human personality and suggested that each individual possesses a certain degree of energy of differing kinds. Furthermore, he expressed the belief that the individual's energy is located or emanates from need systems. (Argyris, 1957: 27) Other writers, both before and after, have referred to these need systems in one manner or another - motives, needs, desires, attitudes, values. For the present, however, it is sufficient to accept the postulate that individuals do possess 'needs' (particular to this study reference should be made to values or preferences) and it is the non-fulfillment of these needs that results in actions or consequences of some importance.

Subsequently, Argyris (1964) wrote at length on the individual-organization relationship and in discussing the reality of the incongruency in this relationship cited research involving

scientists which illustrated clearly that in a great percentage of cases the individuals were desirous of more opportunities for their perceived needs.

He also suggested that the energy (psychological energy) of individuals available to organizations is dependent upon "opportunities for work in which the individual is able to define his immediate goals, define his own path to these goals, relate these to the goals of the organization...." (Argyris, 1964: 34) It is in this sense that he specified the source of conflict between the individual and the organization:

The formal organization...and the administrative control system typically used in complex formal organizations may be viewed as part of a grand strategy to organize human effort to achieve specific objectives....The strategy creates a complex of organizational demands that tend to require individuals to experience dependence and submissiveness and to utilize few of their relatively peripheral abilities. (Argyris, 1964: 58)

In other words, what the individual perceives as valuable in his work experience is often not achieved due to the more over-riding effects of the organization, its structure and functioning.

The concern about how a person feels about his job and how he reacts in light of these feelings has stimulated a great deal of research on job attitudes. Within the general area of job attitudes the concept of job satisfaction has become prominent as a concept that depicts an individual's relationship with an organization and it is the concept of job satisfaction that is the particular concern of this study.

II - JOB SATISFACTION

Concept of Job Satisfaction

Job satisfaction, as a facet of job attitudes, has been defined in numerous ways:

...feelings or affective responses to facets of the situation (Smith, Kendall, and Hulin, 1969: 6)

...job satisfaction was defined as essentially an attitude -- a feeling towards objects or persons. (Johnson and Weiss, 1971: 9)

Job satisfaction: that condition of the human organism that exists so he may say that he is content with his job. (Barrett, 1969: 47)

...job satisfaction is a species of affect or hedonic tone, for which the stimuli are events or conditions experienced in connection with jobs or occupations. (Katzell, 1964: 342)

...satisfaction is defined as the extent to which rewards actually received meet or exceed the perceived equitable level of rewards. (Porter and Lawler, 1968: 31)

Job satisfaction is the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values. (Locke, 1969: 316)

The above definitions range from being very simplistic in nature (feelings toward the situation) to being more complex (encompassing the concept of values, preferences, evaluations). A review of research literature logically reflects this simple-to-complex trend.

Determinants of Job Satisfaction

Early research and much of the contemporary research on job satisfaction has been centered in the industrial setting. One of the most extensive reviews of the literature concerning this research up to 1964 was presented by Vroom in Work and Motivation. (1964) A major section of Vroom's publication dealt with the determinants of job satisfaction and as such deserves attention at this point.

Generally, by way of interview or questionnaire, employees (primarily in industrial settings) had been asked to indicate whether they liked or disliked aspects of their jobs. From the mass of research using these techniques Vroom (1964) summarized a number of work variables that had been thought to affect job satisfaction among workers as discovered by the use of factor analysis methods of varying types. He suggested that the more common factors emerging from such studies were the following: attitudes toward the company and its management; promotional opportunities; the content of the job; supervision; financial rewards; working conditions; and co-workers. (Vroom, 1964: 102-103)

Other authors found similar general factors which they believe are associated with job satisfaction. In a summary article, Burke (1966) reviewed fourteen different studies which were carried out between 1963 and 1966 and which used factor analysis methods as part of the investigation. The results of this review pointed to the fact that investigators defined as many as six different factors in the work environment that seemed to affect satisfaction levels.

Hinrichs (1968), after factor analysing his data, described nine factors that emerged from his study (based on a 250 item questionnaire): intrinsic challenge of the work itself; demands of the work; immediate manager; pay factor; future advancement; company in general; interpersonal environment; work obstacles; and job security.

Job satisfaction among individuals in an educational setting has also received similar attention -- that is, the use of factor analysis has been prevalent in determining general correlates of job satisfaction. Major areas of dissatisfaction included salaries,

poor human relations among the staff, inadequate buildings and equipment, high teaching load, training inadequacies, large classes, expressions of personal inadequacies, lack of time for certain professional duties, and low status of the profession in society.

(Rudd and Wiseman, 1962: 275)

In more general terms, and at an earlier date, Chase (1951) spoke of four general factors affecting teacher satisfaction: personal factors (sex, age), leadership factors, professional responsibility factors, and factors related to working conditions.

In a study which compared the satisfaction of Australian teachers in Canadian and Australian situations Holdaway (1971) outlined five general factors which seemed to be prevalent: relations with authority, working conditions, salary, relations with staff and pupils, study opportunity. These five general factors emerged after factor analysis of eighteen job-specific factors.

Vroom (1964) has also indicated that the majority of early studies attempted to determine causation of satisfaction by using only two measures: 1) report of the extent of satisfaction, and 2) the characteristics of work roles and work environment. (1964: 159) He further suggested that:

One of the problems confronting the industrial psychologist is to account for the fact that people differ in the extent to which they report satisfaction with their jobs. It is typically assumed that the explanation of these differences lies in the nature of the jobs which these people perform. They express different amounts of job satisfaction because they have different supervisors, or different co-workers, because they work for different companies, or because they have different duties. (Vroom, 1964: 104-105)

As a consequence of this limited approach, 'personality mechanisms' were ignored and conflicting results were found rather consistently.

It is the latter concern for the individual and his values (preferences) that has particular relevance to the present study and therefore will be dealt with more thoroughly.

Herzberg's Motivator-Hygiene Theory

A major stimulus to research in the area of job satisfaction has been the work of Herzberg et. al. and their publication of Motivation To Work. (1959) The motivator-hygiene theory was explained as a theory suggesting job factors could be divided into two classifications -- satisfiers and dissatisfiers.

The principle hypothesis of the theory is that job content elements such as responsibility, advancement, recognition, achievement, growth opportunities, and the work itself account for variance in job satisfaction and job motivation. The context elements such as company policy and administration, supervisory relationships, salary, and working conditions are determinants of job dissatisfaction." (Wolford, 1971: 501)

In other words it was suggested that one set of work environment factors was responsible for satisfaction or no satisfaction, and another set of factors was responsible for dissatisfaction or no dissatisfaction; no one factor could be responsible for both satisfaction and dissatisfaction.

Herzberg (1959) completed his research using the critical incident technique. His approach, by interview, was to ask the individual to think of a time when he was greatly satisfied or greatly dissatisfied with his job, and subsequently the respondent was asked to report the factor that he thought was responsible for the feeling at that time.

The ensuing research instigated by Herzberg's work has been inconclusive in so far as proving or disproving the two-factor theory noted above. This has partly been due to a difference in methodologies --

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interview and critical incident versus questionnaire. A number of studies using the questionnaire technique found no support for Herzberg's two-factor theory. (Hulin and Smith, 1967; Graen, 1968; Waters and Waters, 1969; Wolf, 1967; Lindsay, Marks and Gorlow, 1967) Other studies using Herzberg's critical incident and interview technique have demonstrated at least partial support for his theory. (Friedlander, 1964; Wernimont, 1966; Sergiovanni, 1967)

More recently extensive literature reviews and analysis have emphasized the inconclusive nature of the two-factor theory research. House and Wigdor (1967) reviewed a considerable number of research projects directly concerned with Herzberg's two-factor theory. After presenting criticisms of methodology used they were led to the conclusion that "...the two-factor theory is an oversimplification of the relationships between motivation and satisfaction, and the sources of job satisfaction and dissatisfaction." (House and Wigdor, 1967: 387) At the same time Whitsett and Winslow (1967) took the opposing view and offered a review of the literature which showed support for the two-factor theory and condemned the critics of the theory on the basis that the theory was being misinterpreted and was being credited with assumptions not intended by the original proponents of the theory. Each of the above pairs of authors offered rebuttals (Winslow and Whitsett, 1968; House and Wigdor, 1968) with neither bending toward the other's view. House and Wigdor voluntarily terminated the debate by suggesting: "Until there are new data based on experimental methodology, it is our conviction that continued controversy will serve no useful purpose." (1968: 62)

More recently, negative criticism against the two-factor

theory has been renewed. In terms of the different effects of motivators and hygienes King (1970: 19) outlined five versions of the two-factor theory and by reviewing and analysing previous research reports came to the conclusion that none of the five versions were deserving of support. Based on King's (1970) work, Waters and Waters (1972) empirically tested the five versions of the two-factor theory using a sample of female clerical workers. On the basis of correlational data provided by questionnaire research Waters and Waters concluded that for their female sample "...the two-factor theories were not supported by data obtained by methods other than critical incident or subject-coded procedures." (1972: 23) King suggested that if the two-factor hypothesis were valid, results would be consistent regardless of methodology. This would seem not to be the case.

However, many studies have been consistent in suggesting that certain factors (intrinsic factors -- responsibility; advancement; recognition; achievement) were more important in producing both satisfaction and dissatisfaction than were other factors (extrinsic factors -- policy; salary; hours of work). (Friedlander, 1964; Wernimont, 1966; Starcevich, 1972; Burke, 1966)

In an analysis of methodology Schneider and Locke (1971) suggested that biases in the incident classification system used by Herzberg left the theory vulnerable to criticism. It was their contention that no differentiation (in terms of reporting incidents by respondents) was made between events and agents. (1971: 442) Schneider and Locke subsequently structured research to account for this difference and concluded: "When a more logical system is used, it is found that the same categories of events are judged to lead to

both good and bad days on the job." (1971: 454) This is consistent with previous findings which have indicated that factors are responsible for both satisfaction and dissatisfaction. This in turn supports the contention that a single satisfaction-dissatisfaction continuous scale is needed for the measurement of satisfaction and dissatisfaction.

Further criticism of the two-factor theory has been presented by Smith and Cranny in the following comment: "Another serious criticism of the two-factor theory studies has been the failure of the theory to take into account either individual or situational variables which might alter the relationships of rewards and attitudes." (1968: 473)

Finally, research using Herzberg's approach to the two-factor theory has been questioned in terms of its usefulness. "Any study which measures only satisfaction with individual job factors is not relevant for without measures of overall job satisfaction and dissatisfaction, the relative contribution of individual factors to the overall measures cannot be determined." (King, 1970: 24) Ewen (1964) also criticized Herzberg's approach for the same reason.

III - DEVELOPMENT OF A DISCREPANCY MODEL

Role Theory in Organizational Research

In their publication The Social Psychology of Organizations Katz and Kahn (1966) spent considerable time discussing role theory as it applied to organizational behavior. They stated that role behavior referred to the recurring actions of an individual and it is role expectations, created by the environment and the people in the environment, that help define and clarify an individual's role and

role related behavior. (1966: 174) They further suggested that role expectations are not just those defined by the formal organization. In fact, it may be reasonable to expect an individual's perceived role expectations to be in conflict with what has actually been stated by the organization hierarchy as expectations for that role.

The objective organization and the psychological organization of a person may or may not be congruent, depending on his ability and opportunity to perceive organizational reality. Thus for each individual in an organization there is not only a sent role, consisting of the influential and communicative acts of the members of his role set, there is also a received role, consisting of his perceptions and cognitions of what was sent. (Katz and Kahn, 1966: 177)

It is the received role...which is the immediate influence on his behavior and the immediate source of his motivation for role performance. (Katz and Kahn, 1966: 177)

In other words, it is the individual's perception of reality (for a multitude of environmental aspects) which instigates a behavioral reaction on his part. There seems to be no reason why the individual's reaction to his perceptions of reality might not be attitudinal in nature as well as behavior oriented.

Furthermore, an individual's expectations of role behavior will lead to a set of expectations concerning the conditions necessary for his role performance and a set of expectations concerning the results (reward, outcomes) of role performance. In essence the individual becomes a " 'self-sender', that is, a role sender to himself." (Katz and Kahn, 1966: 178)

When such sets of expectations are taken into a work environment there will ultimately be an evaluation process conducted by the individual to determine the extent to which the situation or environment

(organization) is providing for the attainment of the expectations. The evaluation process then provides a perceived discrepancy between expectancy (preference) and what exists. The resultant attitudinal reaction may be measured as satisfaction or dissatisfaction on the basis of an individual's perception of the size of the discrepancy between the perception of reality (received role) and his own preference or expectation with respect to a great many aspects of the work environment. "The discrepancy score is the difference between the respondent's statement of what should be...and his perception of what actually is...." (Corwin, 1961: 610)

In terms of the present study support is found with reference to what Lichtman and Hunt have described as the personalistic approach to analysing the individual-organization relationship. They suggest: "the general assumption or the personalistic view is that people react to their organization on the basis of their perceptions of it. These perceptions are based on people's needs, motives, and values." (Lichtman and Hunt, 1971: 279)

In view of the foregoing comment, it is important to note that the major concern is not that of defining people's needs, motives, and values, but the major concern initially must be the descriptive task of describing people's reactions to the work situation in terms of their perceptions of it and in terms of their expectations for the situation. That is, for any one aspect of the work situation an individual will have expectations -- for example, expectations of what amount of time or money should be available for the task to be performed, or expectations of the rewards available from the performance of the task -- and he will also hold perceptions as to

how closely the reality of the situation approximates his expectations.

Katz and Kahn (1966) also discussed role conflict and role overload. In terms of role conflict they have suggested intersender conflict exists when "expectations sent from one sender are in conflict with those from one or more other senders." (Katz and Kahn, 1966: 184-185) In terms of the present study 'senders' may be considered to be such abstract or concrete stimuli emanating from role sets such as coaching, community involvement, research and teaching. This is consistent with Katz and Kahn's suggestion that the source of sent roles can be found in the systematic properties of the organization as a whole and the subsystems of the organization. (1966: 191) In the case of professionals there is a likelihood that expectations concerning roles will be 'sent' by the individual's occupational group. (Scott, 1966: 272) In other words, the organization or some other stimulus creates expectations about what an individual's involvement in each of these areas of work should be. If in his perception of these multiple roles he sees too many over-demanding expectations then conflict may become severe and reduce satisfaction. "Dissatisfaction is the result of frustrated expectations." (Leavitt and Bass, 1964: 376)

In a similar sense role overload could be a problem-producing phenomena:

Overload is typically encountered as a kind of intersender conflict in which the sent expectations of various members of the role set are legitimate and not logically incompatible. The focal person, however finds that he cannot complete all of the tasks urged on him by various people in the stipulated time limits and requirements of quality. He is likely to experience overload as a conflict of priorities or as a conflict between quality and quantity. (Katz and Kahn, 1966: 185)

To the extent that roles involve expectations and to the extent that any one individual may be required to perform several work roles at a time (Lickman and Hunt, 1971: 289) one might assume there are also expectations of effort needed to perform roles adequately. These expectations might be compounded with certain conceptions of the importance of each role. This would seem to be consistent with Cyert and March (1963: 116) who have suggested organizational roles are the principal sources of conflict between individuals and organizations. In general, the implication is that perceived overload will lead to dissatisfaction or at least a reduction in satisfaction. This position is consistent with several other authors. (Grace, 1955; Rizzo, House, and Lirtzman, 1970; Kahn et. al., 1964)

Research and the Discrepancy Model

A number of research projects on job satisfaction have had as their basis the discrepancy model. McCarrey and Edwards prefaced their project with research biologists by stating job satisfaction was the result of interaction between: "(a) the extent to which a goal object was provided and (b) its perceived importance to the individual." (1972: 271) In this case the extent to which the goal object was present was a function of the individual's perception of his work environment.

Katzell (1964) provided a thorough theoretical framework for his discussion of job satisfaction by using the concept of 'adaptation level' and 'frame of reference.' He initiated his remarks by suggesting the degree of job satisfaction was attributable to differences in stimuli and differences in the incumbents. (1964: 342)

A way of making a person's frame of reference operational is to determine what magnitude of a stimulus evokes a neutral or indifferent response; this stimulus magnitude is termed the adaptation level. The feeling or affective response evoked is, according to this view, directly proportional to the discrepancy between the stimulus and its corresponding adaptation level, and inversely proportional to the adaptation level. (Katzell, 1964: 342)

Two things of importance evolve from the above statement. Firstly, it is directly stated that the size of the discrepancy is related to the size of the affective response. In terms of satisfaction or dissatisfaction (as the affective response) the strength of these responses vary directly according to the size of the discrepancy between the stimulus object or event (as perceived by the individual) and the individual's adaptation level.

Secondly, Katzell's approach can be interpreted to mean that a stimulus could be perceived as being greater or lesser than the adaptation level. Subsequently, the need for a continuous bi-polar scale (satisfied to dissatisfied) becomes apparent in order to measure the affective response.

As a result of multivariate research with professional engineers designed to clarify the confusing picture of job satisfaction resulting from the Herzberg two-factor theory, and not directly related to the testing of a particular 'discrepancy model', Wood and LeBold suggested the "relationship between overall satisfaction and specific job attitudes may be dependent, in part, on the discrepancy between what a person values and what characterizes his job."

(1970: 179) The latter part of their comment could be interpreted as meaning what characterizes the job in reality, not what characterizes the job according to the individual's own perceptions. If such was

the case it would be somewhat contradictory to previously cited authors. Larson and Owens (1970: 40) pointed to the same possibility at an earlier date. The analysis of data concerning biographical variables and satisfaction and importance ratings led them to suggest such individual characteristics as expectations should be considered. This, of course, is consistent with previous implications that stated expectations evoke evaluations and ultimately these result in discrepancy perceptions.

Using slightly different terminology Miller (1970: 262) investigated job attitudes in terms of the satisfaction of psychological characteristics. He defined dissatisfaction as need fulfillment deficiency without investigating the relationship between satisfaction and deficiency, and without providing a literature review to support his thesis. The concept of discrepancy seems to have been a priori knowledge to him.

As early as 1964 Vroom, on the basis of cognitive psychology theory, described his concept of 'valence'. Prefacing his comments with the assumption that "...a person has preferences about outcomes or states of nature," (Vroom, 1964: 15) Vroom subsequently suggested 'valence' referred to affective orientations toward outcomes -- these affective orientations being able to take either positive or negative values of varying degrees. (1964: 15) He further expressed the belief that 'valence' (anticipated satisfaction) could be explained by the "cognized instrumentality of the object of the attitude, and the intensity and nature of the affect expected...." (Vroom, 1964: 16)

Basically what Vroom has said is that individuals have preferences (valences) and expectations about all aspects of their

environment. When these expectancies or preferences are not met there is an affective response -- dissatisfaction. Again, inherent in this theory is the implication that the attainment of expectations is variable which in turn means the affective response is variable.

More recently, Smith, Kendall and Hulin (1969) have approached the problem of job satisfaction on a similar basis.

Job satisfactions are feelings of affective responses to facets of the situation. We hypothesize that these feelings are associated with a perceived difference between what is expected as a fair and reasonable return (or when the evaluation of future prospects is involved, what is aspired to) and what is experienced, in relation to the alternative available in a given situation. (Smith, Kendall and Hulin, 1969: 8)

As a result of extensive preparation, evaluation (validation measures) and refining, Smith, Kendall and Hulin (1969) produced the Job Descriptive Index (JDI). For five areas of a job (work, pay, promotions, supervision, and co-workers) the JDI asks respondents to reply in the form of 'yes' or 'no' as to whether a series of words within each of the five general job areas is indicative of his present job. The information provided by these responses is used to infer satisfaction or dissatisfaction on the basis of stated differences.

It is important to note that the method described above makes no provision for the respondent to indicate the degree or extent to which the descriptive word parallels the characteristic of his job. For example, the respondent is asked to say 'yes' or 'no' to the question which asks whether his work is routine. It may be reasonable to assume one's work is routine in one sense and not routine in another. If so, a simple 'yes' or 'no' may not be an accurate enough assessment of the individual's perceptions.

Locke's Discrepancy Model

Of particular importance to the present study is the material presented by Locke. (1969) Initially, as a reaction to previous research Locke stated: "Previous investigators had failed to differentiate between evaluations and descriptions of the job when composing questions to measure job satisfaction...." (1969: 313) It is his belief that satisfaction or dissatisfaction is an emotional response which results from an evaluation of whether one's values or likes are being met. The evaluation process contains three elements: "1) the perception of some aspect of the job;...2) an implicit or explicit value standard; and 3) a conscious or sub-conscious judgement of the relationship between (eg. discrepancy between) one's perception(s) and one's value(s)." (Locke, 1969: 317) This results in what Locke has described as a value-percept discrepancy. For the purpose of the present study 'value' has been deemed analogous to 'preference' as was previously stated in the section Definition of Terms.

In addition Locke (1969) presented several studies which were designed to test the theory that value-percept discrepancy (and variable degrees of this discrepancy) was a useful tool for the prediction of job satisfaction. For the initial study correlations were calculated between direct reports of discrepancy size and satisfaction levels on eight job aspects. The respondents were making such evaluations on their last summer job. The mean between-subject correlation was minus .61. In a second study respondents were asked to give ratings on satisfaction levels, what they thought they were getting, and what they thought they should get in ten aspects of their last summer job. Similar correlations were calculated

and a mean between-subject correlation of minus .81 was found.

The data in the above studies was re-analysed on the basis of intraindividual correlations between discrepancies and satisfaction levels in order to hopefully account for individual differences without really classifying individuals as high or low on such traits as 'achievement orientation' as has been done in the past. (Wolf, 1970; Landy, 1971) The results of this procedure were somewhat more consistent with correlation coefficients of minus .76 and minus .72 appearing.

In view of the fact that these two studies referred to by Locke (1969) were based on students reminiscing on past jobs and being presented with only a minor number of job aspects, it was deemed suitable and worthwhile to attempt by the present study to test Locke's theories on respondents who were presently involved in permanent jobs. It was further decided to investigate a considerably greater number of job aspects.

IV - TASK EXPERIENCE AND ATTITUDES

A review of material presented by Breer and Locke (1965) on the effects of task experience on attitudes is relevant for the inclusion of biographical and demographic variables as they relate to satisfaction and dissatisfaction. Very briefly, their theory stated that in any task situation an individual plays a role in determining the specific patterns of rewards and punishments to which the individual can be expected to respond. On the basis of many cognitions the individual hypothesizes the most effective way of performing the task in order to obtain the rewards. The rewards and punishments subsequently lead the individual to repeat or extinguish

certain behaviors.

In reference to the present study Breer and Locke's ideas would suggest that individuals who have participated as a staff member in a particular organization for a lengthy period of time will have accommodated and adjusted to the system of rewards. This may be true of the university atmosphere in general. If in fact this is true, one might expect a lesser degree of 'value-percept' or 'actual-preferred' discrepancy and subsequently a higher level of satisfaction for those who have had a longer tenure in a particular university or in the university atmosphere in general.

Breer and Locke's (1965) postulations might be integrated with postulations on the consequences that might appear if the system of rewards and punishments changed, particularly with reference to those individuals who have had tenure in the organization for a lengthy period of time. Such an outcome might take place with the change in directorship.

V - BIOGRAPHICAL AND DEMOGRAPHIC VARIABLES AND SATISFACTION

Age has often been studied as a factor in job satisfaction. Generally satisfaction has been found to increase as age increases. Okonkwo (1966: iv) and Karolat (1971: iii-iv) found evidence to support this. Salek and Otis (1964: 429) also found supporting evidence, but suggested satisfaction decreased during the terminal period of employment. One might also anticipate that age will correlate highly with other biographical variables -- degrees held, years of university employment, academic rank held, tenure. With particular reference to tenure, Smith and Cranny (1968: 479) have suggested this would hold true.

Similarly, satisfaction has been found to vary with sex, however, the results of the studies seem to be conflicting. In a study of plant workers Hulin and Smith (1964: 91) found evidence that suggested females were less satisfied with their jobs than their male counterparts. On the other hand, Karolat (1971: iii-iv) and Okonkwo (1966: iv) both studied groups of teachers and found that satisfaction levels tended to be higher for females than males.

Finally, in a study of job satisfaction in Ontario universities Daniel (1971: 179-182) investigated such variables as years of service, age, sex, tenure, number of degrees, academic rank, and their relation to satisfaction. No relationship existed between satisfaction and age or years of service. Tenure, academic rank, number of degrees possessed did relate positively to satisfaction.

CHAPTER III

METHODOLOGY

This chapter is designed to present the research hypotheses and then to discuss the development of the instrument, operational definitions of concepts being measured, sample selection, administrative procedures, and statistical analysis procedures.

I - HYPOTHESES

A series of research hypotheses have been stated on the basis of the review of literature and have been stated in the 'null' form rather than in the 'alternative' form. The rationale for the use of the null hypothesis form is derived from several sources which all agree with this convention. (Edwards, 1950: 88; Siegel, 1956: 7; Winer, 1962: 11; Myers, 1966: 24; Lathrop, 1969: 113; Kerlinger, 1969: 174; Isaac, 1971: 142)

A. Hypotheses Derived From the Concept of a Discrepancy Model

Hypothesis One: Self-reported levels of satisfaction will not be significantly related to the extent of discrepancy between what one prefers and what one sees as existing for each of the fifty-one job aspects.

Hypothesis Two: Self-reported levels of satisfaction will not be significantly related to the extent of discrepancy between what one prefers and what one perceives his employer preferring for each of the fifty-one job aspects.

B. Hypotheses Derived From the Concept of an Overall Measure of Satisfaction

Hypothesis Three: Self-reported levels of satisfaction with the job as a whole will not be significantly related to self-reported levels of satisfaction for each of the fifty-one job aspects.

Hypothesis Four: Self-reported level of satisfaction with each of the four general work areas (coaching, community involvement, research, and teaching) will not be significantly related to self-reported levels of satisfaction with specific work aspects within the respective general work area.

Hypothesis Five: Self-reported level of satisfaction with the job as a whole will not be significantly related to self-reported levels of satisfaction with each of the four general work areas.

C. Hypotheses Derived From Review of the Literature on Biographic and Demographic Variables

Hypothesis Six: Self-reported levels of satisfaction will not be significantly related to the various selected demographic and biographic variables listed below.

- 1) size of the institution
- 2) years as chief administrator in present position
- 3) respondent's years of employment in universities while holding academic rank

- 4) holding of tenure
- 5) age
- 6) sex
- 7) academic rank level

Hypothesis Seven: Self-reported discrepancy levels between what one prefers and what one sees as existing will not be significantly related to:

- 1) size of the institution
- 2) years as chief administrator in present position
- 3) respondent's years of employment in university while holding academic rank
- 4) holding of tenure
- 5) age
- 6) sex
- 7) academic rank held

II - THE RESEARCH INSTRUMENTS

Two questionnaires were developed by the investigator.

- A. The CHIEF ADMINISTRATOR'S QUESTIONNAIRE. This questionnaire (Appendix C) was designed to obtain information on the demographic variables for each institution surveyed. The last question of the single-page questionnaire was included in order to obtain an indication of the importance to the four general areas of work by the chief administrator.
- B. The WORK ENVIRONMENT QUESTIONNAIRE. This questionnaire (Appendix B) was designed to elicit responses from full-time academic staff members to questions in five general areas of concern: 1) biographical information (age, sex, degrees held, years of experience, tenure held, academic rank, area of academic interest, responsibilities held); 2) levels of importance and satisfaction for the four general areas of work (coaching, community involvement, research, teaching; 3) levels of satisfaction for fifty-one specific work environment aspects;

4) preferred-perceived discrepancy levels for fifty-one specific work environment aspects; 5) employer-employee discrepancy levels for fifty-one specific work environment aspects.

Rationale for Item Selection

In reference to items selected for inclusion in the Chief Administrator Questionnaire, questions 1 and 2 were justified on the basis of Breer and Locke's discussion of task experience which suggested organization members adapt to an organization's system of rewards and punishments (1965). It seems logical to postulate that the number of years an organization has been in existence and the length of time as chief administrator might affect the stability of the system of rewards and punishment. Subsequently such variables may affect satisfaction and dissatisfaction.

Questions 3, 4, 5 and 6 were designed to obtain information which is associated, either directly or indirectly, with the size of an organization. Indik (1967) presented information and theoretical formulations which suggested that size may be related to attitudes toward the organization. As satisfaction-dissatisfaction has been termed an attitudinal reaction size of the organization as a demographic variable may be considered as an important factor.

Finally, question 7 was included in order to obtain an indication of the importance attached to each of the four general work areas (coaching, community involvement, research, and teaching) by the chief administrator of each physical education institution. This was done in order to do a pilot investigation on the congruency of such importance ratings between administrator and staff. As a result two similar questions were included in the WORK ENVIRONMENT

QUESTIONNAIRE in anticipation that rank order correlations might provide initial information on administrator-staff member perception congruency for the four general areas of work.

In the WORK ENVIRONMENT QUESTIONNAIRE questions 1 through 8 dealt with biographical information of the respondents. The inclusion of such items is justified on the basis of their continued inclusion and relevance in other studies, and particularly in view of their relevance to the results of Daniels (1971) study on job satisfaction in Ontario universities.

Questions 9 and 10 concerning respondents importance ratings of the four general work areas were included to provide parallel information to that obtained from question 7 of the CHIEF ADMINISTRATOR'S QUESTIONNAIRE.

Question 11 of the WORK ENVIRONMENT QUESTIONNAIRE requested the respondents to provide a global indication of satisfaction with the four general work areas and with the job as a whole. It was anticipated that this measure would allow the comparison of the relationship between these measures and measures of satisfaction with specific aspects of the work environment.

Questions 12, 13 and 14 of the WORK ENVIRONMENT QUESTIONNAIRE asked three different questions about fifty-one specific aspects of the work environment of a full-time physical education staff member. The three questions concerned satisfaction levels, preferred-perceived discrepancy levels, and employer-employee discrepancy levels respectively.

Smith, Kendall and Hulin (1969: 4), in the development of their JOB DESCRIPTIVE INDEX criticized questionnaire instruments

which included "job specific" items in view of the inability of such an instrument to be used across a great number of occupational settings. However, the inclusion of job-specific items in the questionnaire for the present study was done on the belief that such items would provide more relevant and realistic points of reference upon which respondents could base their perceptions of satisfactions, preferred-perceived discrepancies, and employer-employee discrepancies.

The choice of the job-specific items within each of the four general work areas was based on two things: a) job specific items used in previous research studies and then adapted to the university physical education setting, and b) job specific items which appeared to be important factors in the work environment of university physical educators. To some extent it was a process of reversing what was done by factor analysis, that is from general factors found in other studies (Burke, 1966; Hinricks, 1968; Holdaway, 1971) numerous specific aspects of the physical educator's work environment were defined.

III - OPERATIONALIZING OF CONCEPTS

Satisfaction-Dissatisfaction Scale

In order to assess levels of satisfaction and dissatisfaction a six-point Likert-type scale was developed. Respondents were asked to indicate their level of satisfaction for the job as a whole, for each of the four general work areas, and for each of the fifty-one job-specific work aspects by circling the number which corresponded to how they felt about the item in question. The scale is shown below.

<u>Very Satisfied</u>	<u>Quite Satisfied</u>	<u>Slightly Satisfied</u>	<u>Slightly Dissatisfied</u>	<u>Quite Dissatisfied</u>	<u>Very Dissatisfied</u>
(6)	(5)	(4)	(3)	(2)	(1)

In preparation for the major study the initial version of the questionnaire was administered to seven sessional instructors in physical education at the University of Alberta. The original satisfaction scale was a five-point scale which labeled the scale midpoint as "neutral". In agreement with the results of a study on scale construction by Holdaway (1971) an extremely high number of the responses were on the mid-point ("neutral") of the scale. In order to prevent a possible non-committal response from respondents the scale was changed to a six-point scale which included the categories of "slightly satisfied" and "slightly dissatisfied." It was felt that these response categories would provide an indication of the direction of their attitude toward the job aspect in question.

Discrepancy Scales

In order to operationalize the concepts of preferred-perceived and employer-employee discrepancies a five-point Likert-type scale was developed:

<u>Much Less Than What I Prefer</u>	<u>Less Than What I Prefer</u>	<u>No Difference</u>	<u>More Than What I Prefer</u>	<u>Much More Than What I Prefer</u>
(1)	(2)	(3)	(4)	(5)

Respondents were asked to indicate, by circling the appropriate number, their reaction to each of the fifty-one job-specific items insofar as the perception of preferred-perceived and employer-employee discrepancies were concerned.

In the case of the discrepancy scale the 'neutral' or 'no difference' position on the scale was crucial in that Locke's (1969) theory suggests an indication of 'no difference' should correspond to an indication of high satisfaction.

The two response categories of "More Than What I Prefer" and "Much More Than What I Prefer" at first glance seemed redundant. In actual fact it was not expected that many respondents would choose one of these two categories, for the majority of work items, however, it was believed that the choice of such response categories would be appropriate for certain job-specific items.

Two discrepancy measures were chosen in view of the inability to make the assumption that what actually exists is equal to what the employer prefers.

Finally, again in contrast to Smith, Kendall and Hulin (1969: 4) it was essential to use a summated rating type scale since Locke's (1969) and others predictions suggested the extent of satisfaction or dissatisfaction was related to the size of perceived discrepancy. A simple "yes-no" or "satisfied-dissatisfied" response would not allow for the testing of the postulations.

IV - SAMPLE

Respondents for the research project were solicited from thirty-two Canadian universities of which five were defined as French-speaking universities and twenty-seven as English-speaking universities.

The choice of universities was based on whether or not a professional preparation program in physical education was offered at the university.

A list of universities initially surveyed is presented in Appendix E.

Questionnaires were sent to full-time academic members of staff who had been employed in that faculty (school, department) before August 1, 1973. The WORK ENVIRONMENT QUESTIONNAIRE was not to be answered by: a) deans, directors, or chairmen, b) sessional instructors, c) administrative officers.

The necessity of providing a French translation of the instruments resulted in the questionnaires destined for French-speaking universities being mailed later than the questionnaires directed to English-speaking universities. Shortly after the French questionnaires were mailed a national postal strike occurred which delayed the arrival of questionnaires at their initial destination. The arrival of the questionnaires at the French-speaking universities also coincided with end-of-term activities -- exams, reports, etc. Possibly due to these and other factors the percentage return from French-speaking universities was extremely low (20%). Reasoning that the late arrival of questionnaires due to the mail strike was a factor not able to be controlled, it was decided that the few responses from French-speaking universities be eliminated from the study.

As a result the sample consisted of a total of 314 respondents from twenty-seven English-speaking universities.

V - ADMINISTRATION OF THE QUESTIONNAIRES

In preparation for distribution the questionnaires were numbered according to university only. In an attempt to assure anonymity questionnaires were not sequentially numbered.

Distribution of the questionnaires was accomplished through the cooperation of deans, directors and chairmen of physical education faculties, schools and departments. On the basis of information provided by the university staff directory prepared by the Canadian Association for Health, Physical Education and Recreation appropriate numbers of questionnaires were sent to the chief administrator of physical education at each university. A covering letter (Appendix A) requested that the questionnaires be distributed to all full-time academic staff members.

A covering letter to the full-time academic staff members (Appendix A) and a stamped, pre-addressed envelope for return was also distributed with the questionnaire.

The questionnaires were posted on February 8, 1974 and respondents were requested to return the completed questionnaires by February 28, 1974. On March 1, 1974 a reminder letter was distributed to all eligible respondents again through the cooperation of the chief administrators. The reminder letter was sent to all eligible respondents because individual questionnaires were not numbered. As a result there was no way to determine who had replied. Appendix D contains the letters used.

VI - VALIDITY AND RELIABILITY

Reliability

The reliability of a measure is its ability to "yield the same results when repeated measurements are taken of the same subjects under the same conditions." (Van Dalen, 1962: 265) Generally such techniques as test-retest, the use of equivalent forms and internal consistency measures are used to test reliability. In the case of

heterogeneous type tests internal consistency measures are not applicable and test-retest procedures are not appropriate as responses are subject to change over short periods of time. (Day, 1971: 47-48)

There are means by which the researcher is able to improve the reliability of his instrument. Kerlinger has suggested two such means:

a) use unambiguous items, and b) use clearly stated instructions.

(1967: 442-443) In an attempt to accommodate these guidelines two procedures were carried out. First, the original WORK ENVIRONMENT QUESTIONNAIRE and three subsequent revisions were analysed and revised.

As a result of evaluations several changes in wording and structure were made. Secondly, after the last revision of the WORK ENVIRONMENT QUESTIONNAIRE it was administered to seven sessional instructors in physical education at the University of Alberta. These instructors were asked to be extremely critical in terms of clarity and ease of understanding of the instrument, and were asked to write comments if they so desired. As a result, a number of minor changes in wording were made and the satisfaction scale was changed from a five-point scale (with a 'neutral' labeled mid-point) to a six-point scale as was previously mentioned.

Validity

In discussing validity Kerlinger (1967: 444-449) named content validation and predictive-concurrent validation measures as viable procedures used in evaluating instruments.

Kerlinger (1967: 446) as well as other authors (Varma, 1965: 98; Day, 1971: 46) have expressed the feeling that content validation is basically a matter of judgement by the researcher and by others. It is

a judgement concerning the representativeness of a group of items made by experts who are familiar with the area being studied. Similarly, other authors have mentioned logical validity (Henderson, 1964: 16; Van Dalen, 1962: 264) and face validity (Levitt, 1961: 47) as being validity based on the judgement of the researcher and other experts. In terms of these types of validity the WORK ENVIRONMENT QUESTIONNAIRE was deemed suitable as the decision to include various items was based on previous research and secondly was evaluated by a panel of experts who were familiar with the university professor's work environment.

On the basis of consistent significant correlations between discrepancy levels and satisfaction levels (from the present study) the instrument was judged to possess a reasonable degree of concurrent validity. Similar results concerning the relationship between global measures of satisfaction and dissatisfaction with job-specific aspects support the contention.

VII - ANALYSIS OF THE DATA

Upon receipt of completed questionnaires the responses were numerically coded and punched on IBM cards. Four cards per individual were used to code all data.

Using the computing facilities at the University of Alberta programs described in Statistical Packages for the Social Sciences (SPSS) (Nie et. al., 1970) were used to provide three types of statistical analysis. These were:

1. SPSS Subprogram CODEBOOK which provided frequency distributions, means, medians, standard deviations on sample characteristics. (Nie,

et. al., 1970: 102-109)

2. SPSS Subprogram NONPAR CORR which provided nonparametric correlations (Kendall tau and Spearman rho) between satisfaction and discrepancy scores. (Nie, et. al., 1970: 153-156)

3. SPSS Subprogram FASTABS which provided chi square analysis for determining significance of difference measures while controlling for possible intervening variables. (Nie, et. al., 1970: 115-134)

The choice of Kendall correlation and chi square as appropriate statistical tests was based on the assumption that the data concerning satisfaction and discrepancy levels was no more than ordinal in nature. This approach is consistent with that presented by Siegel (1956: 18) and Lathrop (1969: 237)

Kendall Rank Order Correlation

The Kendall rank order correlation (tau) procedure was used to test relationships in data as specified in hypotheses one through five. The Kendall tau produces coefficients which are based on the amount of agreement between two sets of ordinal rankings and is more appropriate than Spearman rank order correlation when "the data contain a large number of tied ranks." (Nie, et. al., 1970: 153)

Sugae has reported that the power efficiency of the Kendall tau is 91 percent, which equals the power efficiency of the Spearman rank order correlation.

The use of the NONPAR CORR subprogram from SPSS allowed pair wise deletion responses when respondents failed to provide a satisfaction or discrepancy estimation on any of the fifty-one job-specific aspects. For example, if a respondent failed to provide an estimation of satisfaction with "number of hours of practice" a zero

would be coded as his answer. The NONPAR CORR program subsequently allowed the deletion from the computation of the correlation coefficient of any pair of responses to an item containing a zero.

Spearman Rank Order Correlation

This correlation test was used to determine intra-individual correlations between satisfaction and discrepancy levels. While it is similar to the Kendall tau it is more appropriate in cases where the number of tied ranks is small.

Chi Square Test of Independent Samples

The chi square test of independence was used to test relationships in data as specified in hypotheses six and seven. Seigel has suggested its use in cases where the data can be separated as frequencies in discrete categories. (1956: 104) The use of chi square is also applicable in the present case as some of the variables (sex, tenure, highest degree) can be considered to be nominal in nature only.

Chi Square Goodness of Fit

The chi square goodness of fit test as reported in Ferguson (1959: 195-200) was used to determine the representativeness of the sample on the basis of the number of respondents holding bachelors, masters and doctorate degrees.

CHAPTER IV

RESULTS

The results of the statistical analysis of the data collected during the research project includes data concerned with percentage return of the mailed questionnaires, the distribution of respondents by university, and the representativeness of the sample. General information will also be provided on the demographic and biographic nature of the universities and the respondents respectively as well as the results of statistical analyses pertinent to each of the hypotheses presented in Chapter Three.

The use of specific statistical procedures has been discussed previously and therefore their adequacy will be assumed and not discussed further in this chapter.

I - SAMPLE RETURN

Table 1 illustrates the percentage rate of return on questionnaires for each university and for the total population surveyed. The population figures (NUMBER OF FULL-TIME STAFF) were obtained from the information provided by the chief administrator in physical education from each university.

Percentage returns ranged from a high of 100 percent to a low of 33.3 percent. The average return over all respondents and universities was 59.9 percent. From a review of several publications this over-all average return was judged to be adequate by the investigator in terms of social research methodology. While not specifying a specific percentage return as necessary, Moser (1958: 179)

TABLE 1

QUESTIONNAIRE PERCENTAGE RETURN BY UNIVERSITY ACCORDING TO
CHIEF ADMINISTRATOR'S REPORT OF THE NUMBER OF FULL-TIME
ACADEMIC STAFF MEMBERS IN HIS ORGANIZATION

UNIVERSITY	NUMBER OF FULL-TIME STAFF	QUESTIONNAIRE RETURNED	PERCENTAGE RETURN
1	12	8	66.6
2	14	8	57.1
3	11	7	63.6
4	19	12	63.2
5	8	5	62.5
6	13	10	76.9
7	23	11	47.8
8	29	12	41.4
9	20	14	70.0
10	9	5	55.6
11	8	3	37.5
12	9	3	33.3
13	9	6	66.6
14	23	19	82.6
15	11	7	63.6
16	11	11	100.0
17	21	11	52.4
18	54	35	64.8
19	16	11	68.8
20	14	7	50.0
21	10	5	50.0
22	19	11	57.9
23	26	13	50.0
24	38	16	42.1
25	34	24	70.6
26	16	13	81.3
27	47	28	59.6
TOTALS	524	314	59.9

suggested that thirty to forty percent was very adequate in research dealing with a general population. Oppenheim (1966: 34) indicated agreement with this and also suggested that in the case of special interest groups eighty percent return is seldom achieved and that sixty percent is a reasonable return. Similarly, Babbie (1973: 165) defined fifty percent as 'adequate' and sixty percent as a 'good' return. Therefore, as the investigator judged the population surveyed to be an interest-specific group rather than general, the 59.9 percent return, while not being extremely high, was accepted as adequate for the purposes of data analysis.

In defining a certain percentage return as suitable one must not make the mistake of subsequently assuming the sample to be representative of the population surveyed without further investigation. In the present case there were two sets of data available which allowed the investigator to test whether the sample was representative of the population. Initially, two variables were of importance:

1. the distribution of full-time academic staff members with bachelors, masters, and doctorate degrees in university physical education as reported by the chief administrator of each university in defining his staff composition;
2. the distribution of full-time academic staff members with bachelors, masters, and doctorate degrees in the sample as defined by the responses of each staff member.

According to the information provided by the chief administrators the distribution for the population is as follows: a) 51 holding bachelor degrees only; b) 261 holding both bachelors and masters degrees; c) 212 holding doctorate degrees. The two sets of data were

subjected to a chi square goodness of fit test. The results of this test, presented in Table 2, indicated no significant difference ($.30 > p > .20$) existed between population and sample on this single measure of 'highest degree held.'

TABLE 2
CHI SQUARE GOODNESS OF FIT TEST APPLIED TO DEGREES
HELD BY STAFF OVER ALL UNIVERSITIES

DEGREES HELD	OBSERVED FREQUENCY	SAMPLE %	POPULATION %	E	$\frac{(O - E)^2}{E}$
a) BACHELORS ONLY	28	9.12	9.73	29.87	.1170
b) BACHELORS AND MASTERS ONLY	165	53.74	49.80	152.89	.9591
c) DOCTORATE	114	37.13	40.64	124.76	1.0155
TOTAL	307			Chi Square = 2.0916	

df=2; $.30 > p > .20$

Secondly, again using the chi square goodness of fit test, the representativeness of the sample was tested by comparing the number of full-time academic staff responding to the questionnaire with the total number of eligible full-time academic staff members as reported by the chief administrator of each university. No significant difference between sample and population was found. (Table 3) In fact, $.95 > p > .90$. In this respect the sample was accepted as

TABLE 3

CHI SQUARE GOODNESS OF FIT TEST APPLIED TO FULL-TIME
ACADEMIC STAFF MEMBERS AT EACH UNIVERSITY

UNIVERSITY	OBSERVED FREQUENCY	SAMPLE %	POPULATION %	E	$\frac{(O - E)^2}{E}$
1	8	2.5	2.2	6.9	.1753
2	8	2.5	2.6	8.2	.0048
3	7	2.2	2.0	6.3	.0777
4	12	3.8	3.6	11.3	.0433
5	5	1.6	1.5	4.7	.0191
6	10	3.2	2.4	7.5	.8333
7	11	3.5	4.3	13.5	.4629
8	12	3.8	5.5	17.3	1.6236
9	14	4.5	3.8	11.9	.3705
10	5	1.6	1.7	5.3	.0169
11	3	1.0	1.5	4.7	.6148
12	3	1.0	1.7	5.3	.9981
13	6	1.9	1.7	5.3	.0924
14	19	6.1	4.3	13.5	2.2407
15	7	2.2	2.0	6.3	.0777
16	11	3.5	2.0	6.3	3.5063
17	11	3.5	4.0	12.6	.2063
18	35	11.1	10.3	32.3	.2256
19	11	3.5	3.0	9.4	.2723
20	7	2.2	2.6	8.2	.1756
21	5	1.6	1.9	6.0	.1666
22	11	3.5	3.6	11.3	.0079
23	13	4.1	4.9	15.4	.3740
24	16	5.1	7.2	22.6	1.9274
25	24	7.6	6.4	20.1	.7567
26	13	4.1	3.0	9.4	1.3787
27	27	8.6	8.9	27.9	.0003
TOTAL	314			Chi Square = 16.6488	

df=26; .95 > p > .90

representative of the population.

II - DEMOGRAPHIC AND BIOGRAPHIC STATISTICS

Table 4 indicates the number of universities offering bachelors, masters and doctorate programs in physical education. The data is somewhat misleading in that the University of Alberta offered the only Canadian doctorate program in physical education per se at the time of the study. Ottawa and Simon Fraser universities, indicating they had a doctorate program, may have been making reference to students in other doctorate programs (for example, Education) who had a major interest in physical education.

Noting that a majority of universities offered only a bachelor degree program, an analysis of student enrolment in these programs was carried out. Enrolment ranged from 55 students to over 800 students. For the purposes of further analysis the enrolment figures were categorized and five enrolment classifications resulted. Table 5 summarizes the results of this classification. The re-classification was carried out to make later chi square analysis more meaningful.

An analysis of the sample on the basis of sex and age was performed. (Table 6) Referring to the percentage figures in each cell of the table it may be noted that there were considerably more males over the age of 35 than there were females. The mean age for females was 33 years and 38 years for males. The difference in age distribution by sex was found to be significant at the .001 level. (chi square = 36.1149; df = 8)

Parallel results were discovered in the relationship between

TABLE 4
PROGRAMS OF STUDY OFFERED AT UNIVERSITIES
INCLUDED IN THE STUDY

PROGRAMS OFFERED	NUMBER OF UNIVERSITIES IN EACH ENROLMENT CATEGORY
a) BACHELORS DEGREE PROGRAM ONLY	15
b) BACHELORS AND MASTERS DEGREE PROGRAM	9
c) BACHELORS, MASTERS AND DOCTORATE DEGREE PROGRAMS	3*
TOTAL	27

*Those universities reported to offer doctorate degree programs were Alberta (Edmonton), Ottawa, and Simon Fraser.

TABLE 5
STUDENT ENROLMENT IN BACHELOR
DEGREE PROGRAMS

STUDENT POPULATION IN BACHELOR DEGREE PROGRAM	NUMBER OF UNIVERSITIES IN EACH ENROLMENT CATEGORY
a) 1 - 150	4
b) 151 - 300	12
c) 301 - 450	4
d) 451 - 600	1
e) 600 and more	6

TABLE 6
DISTRIBUTION OF RESPONDENTS IN SAMPLE BY AGE AND SEX
(n = 314)*

		CATEGORIES OF AGE IN YEARS											
		Under	26	31	36	41	46	51	56	Over	Total		
		26	30	35	40	45	50	55	60	60			
FEMALES		2	34	24	4	7	1	3	2	0	77		
		(2.6)	(44.2)	(31.2)	(5.2)	(9.1)	(1.3)	(3.9)	(2.6)	(0.0)	(100.0)		
MALES		1	42	74	66	33	7	7	4	3	237		
		(0.4)	(17.7)	(31.2)	(27.8)	(13.9)	(3.0)	(3.0)	(1.7)	(1.3)	(100.0)		
TOTALS		3	76	98	70	40	8	10	6	3	314		
		(1.0)	(24.2)	(31.2)	(22.3)	(12.7)	(2.5)	(3.2)	(1.9)	(1.0)	(100.0)		

*Numbers in brackets represents the percentages of males and females, and total sample, in each category of age.

sex and tenure (Table 7) with a greater percentage of males holding tenure than females. This is not unusual or surprising in view of the fact that age and tenure were significantly related in the present study. ($\tau = -0.3381$; .001 level: $\chi^2 = 59.0392$; $df = 8$; .0001 level)

Similarly, Figure 1 represents findings concerning academic rank and sex. The histogram indicates the percentage of males and females holding each academic rank. As can be seen females had a greater representation at the lower levels of academic rank than did the males, and the reverse occurred at the upper three levels of academic rank.

III - GENERAL STATISTICAL ANALYSIS

Before an in depth statistical analysis was undertaken, a more general analysis was performed in order to give the investigator direction.

Initially, through the use of SPSS SUBPROGRAM CODEBOOK, frequency distributions of responses on the satisfaction-dissatisfaction scale for each of the fifty-one job-specific aspects were produced. From this information the average mean, median, and standard deviation over all fifty-one job-specific aspects was determined. The same procedure was carried out for the responses to the two discrepancy scales. A summary of these findings is presented in Table 8.

The information in Table 8 indicates two facts: 1) the respondents in the sample were generally satisfied with their work environment as is suggested by the mean of means of 4.23 (the point of '4' on the satisfaction scale is labeled as 'slightly satisfied' while

TABLE 7
DISTRIBUTION OF RESPONDENTS WITH AND WITHOUT
TENURE BY SEX. (n=306)*

	HOLDS TENURE	
	YES	NO
FEMALE	24 (32.0)	51 (68.0)
MALE	107 (46.3)	231 (53.7)

*Numbers in brackets represent percentages of male and female respondents in each of the two tenure categories.

'5' is labeled as 'quite satisfied,') and 2) reference to the mean statistics (means) for the discrepancy scales suggests, in general, that there is a discrepancy between what is preferred and what is perceived as existing. However, the responses to the employer-employee discrepancy scale indicates a greater trend to the 'no difference' position of the scale.

Table 9 provides supportive evidence that the sample is generally satisfied. The respondents were asked to indicate their level of satisfaction with each of the four general areas of work and with the job as a whole. Mean satisfaction levels for each of the five areas for each university is presented in Table 9. For all of the areas except 'research' there seems to be little difference in mean satisfaction levels between universities. A greater range in means was observed in the area of research. The difference in research

FIGURE 1
HISTOGRAM OF PERCENTAGE OF SAMPLE HOLDING ACADEMIC RANK
FOR FEMALES AND MALES. (n = 310)

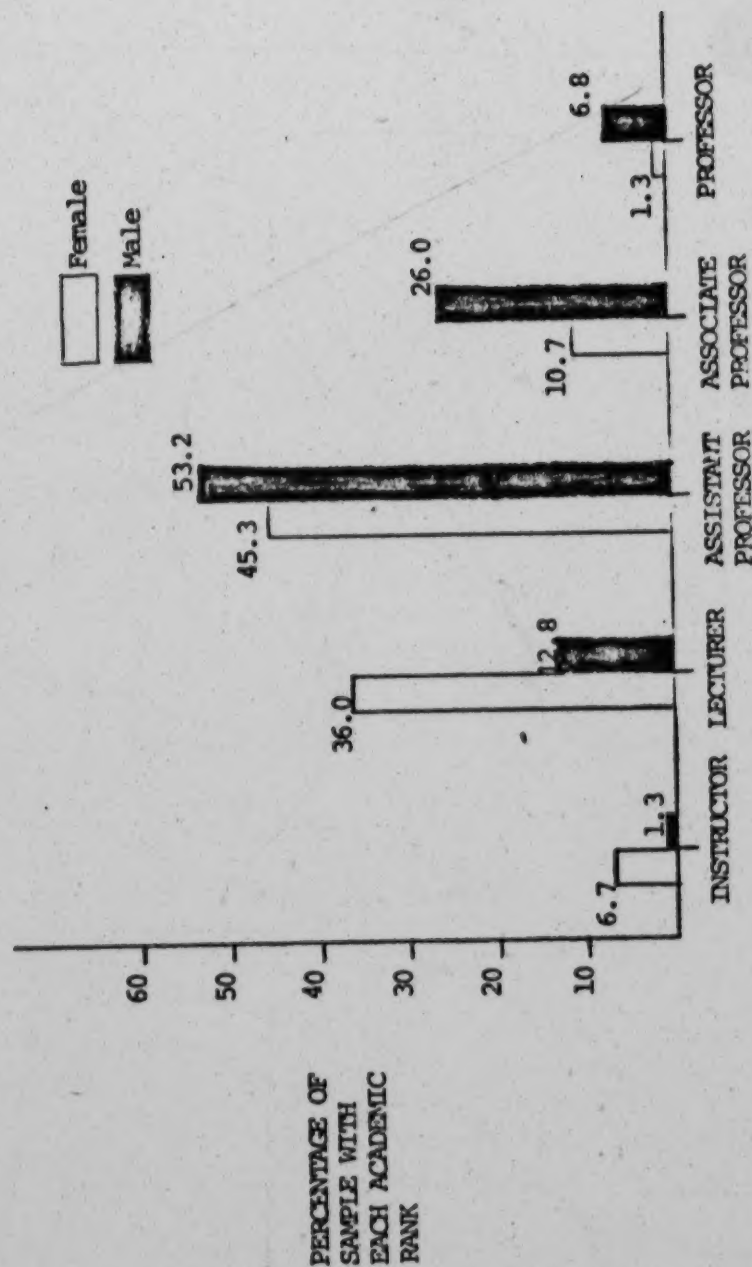


TABLE 8

MEAN VALUES OF FREQUENCY STATISTICS FOR EACH OF THE
FIFTY-ONE JOB-SPECIFIC ASPECTS FOR SATISFACTION
LEVELS, PREFERRED-PERCEIVED DISCREPANCY LEVELS
AND EMPLOYER-EMPLOYEE DISCREPANCY LEVELS
(n = 51)

SCALE	MEAN OF MEANS	MEAN OF MEDIAN	MEAN STANDARD DEVIATION
1. Satisfaction (1 to 6 scale)	4.23	4.35	1.910
2. Preferred-Perceived Discrepancy (1 to 5 scale)	2.57	2.57	0.647
3. Employer-Employee Discrepancy (1 to 5 scale)	2.72	2.83	0.633

TABLE 9
 MEAN SATISFACTION LEVELS FOR EACH OF THE FOUR GENERAL
 AREAS OF WORK AND 'THE JOB AS A WHOLE'
 BY UNIVERSITY

UNIVERSITY	MEAN SATISFACTION WITH				
	COACHING	COMMUNITY INVOLVEMENT	RESEARCH	TEACHING	JOB AS A WHOLE
1	5.3	4.2	3.7	4.2	4.1
2	5.2	4.0	3.5	4.8	5.1
3	4.3	4.0	2.3	5.1	4.7
4	4.7	4.7	3.1	5.0	4.7
5	5.2	4.4	3.2	5.4	5.2
6	5.9	5.1	3.2	5.0	5.1
7	5.0	4.9	4.2	5.0	5.0
8	5.2	5.0	3.6	5.3	4.9
9	3.8	4.4	3.6	4.8	4.6
10	4.2	5.2	2.7	5.0	4.2
11	6.0*	5.0*	2.0*	5.0*	4.0*
12	1.0*	5.3	5.6	5.0*	4.6
13	5.5	4.3	4.6	5.1	5.6
14	4.8	4.8	3.9	5.0	4.8
15	5.6	3.8	2.7	4.2	4.1
16	4.1	4.5	3.5	5.1	5.0
17	4.7	4.5	4.1	5.3	4.1
18	5.0	4.3	3.5	5.0	4.6
19	5.2	5.0	3.8	5.2	4.2
20	4.8	5.1	5.0	5.2	5.5
21	4.6	3.8	4.0	4.8	4.8
22	5.3	4.8	2.7	5.1	4.8
23	4.6	4.5	2.6	5.2	4.7
24	4.8	4.6	3.5	4.9	4.9
25	5.1	4.4	3.7	4.6	4.8
26	4.8	5.1	4.5	5.3	5.0
27	4.5	4.7	3.4	5.0	5.0

*Only one respondent.

satisfaction was significant at the .0001 level (chi square = 89.7; df = 52)

A final general analysis was performed by using the SPSS SUBPROGRAM CODEBOOK. The purpose was to obtain frequency distributions for the response categories for each of the fifty-one job-specific aspects. This was done for the satisfaction scales and for the discrepancy scales. This analysis was carried out in order to determine if it would be necessary to collapse response categories when performing chi square analysis at a later time in the study. Tables 10 and 11 have summarized the information by providing an indication of the mean number of responses to job-specific items in each of the four general areas of work.

TABLE 10

MEAN NUMBER OF RESPONSES FOR THE JOB-SPECIFIC ITEMS ON THE SATISFACTION-DISSATISFACTION SCALE IN EACH OF THE FOUR GENERAL AREAS OF WORK

WORK AREA	SCALE POSITIONS					
	6*	5	4	3	2	1**
a) COACHING	32.7	47.3	21.0	15.4	7.7	7.2
b) COMMUNITY INVOLVEMENT	53.9	123.6	57.7	28.9	10.5	3.5
c) RESEARCH	25.5	51.8	39.9	26.6	19.5	18.1
d) TEACHING	15.4	64.6	80.1	50.5	23.4	11.1

*'Very satisfied'

**'Very dissatisfied'

Table 10 illustrates the fact that categories one and two of the satisfaction scale received relatively few responses. This was to be expected in terms of the information presented in Table 8

and Table 9. As a result the investigator chose to collapse categories one, two and three into a single response category and for the purpose of reporting results it was labeled as 'dissatisfaction.'

Similarly, to seemingly a greater extent, categories four and five of the discrepancy scales received a minimal number of responses compared to other categories. (Table 11) This too was expected and as a result categories four and five were collapsed into one category labeled 'more than what I prefer.' It was later discovered that chi square analysis involving the discrepancy scales has been based on only three categories: 1) 'Much Less Than What I Prefer', 2) 'Less Than What I Prefer', and 3) 'No Difference.'

TABLE 11

MEAN NUMBER OF RESPONSES FOR THE JOB-SPECIFIC ITEMS ON
THE TWO DISCREPANCY SCALES IN EACH OF THE FOUR
GENERAL AREAS OF WORK

WORK AREA		DISCREPANCY SCALE				
		1*	2	3	4	5**
a) COACHING	i)	12.9	35.8	87.8	2.7	0.2
	ii)	4.8	29.5	93.4	4.4	0.5
b) COMMUNITY INVOLVEMENT	i)	13.4	86.2	174.0	15.8	1.2
	ii)	6.5	55.5	186.5	21.0	2.4
c) RESEARCH	i)	25.0	57.0	86.0	8.7	2.5
	ii)	12.3	44.3	85.7	16.8	2.7
d) TEACHING	i)	19.9	85.0	143.1	6.1	0.6
	ii)	11.1	58.0	154.5	14.2	1.6

*'much less than what I prefer'

**'much more than what I prefer'

i) preferred-perceived discrepancy scale

ii) employer-employee discrepancy scale

IV - SATISFACTION AND DISCREPANCY DATA

Hypothesis One: Self-reported levels of satisfaction will not be significantly related to the extent of discrepancy between what one prefers and what one sees as existing for each of the fifty-one job aspects.

Hypothesis Two: Self-reported levels of satisfaction will not be significantly related to the extent of discrepancy between what one prefers and what one perceives his employer preferring for each of the fifty-one job aspects.

The first two hypotheses were tested by using the Kendall rank order correlation procedure for inter-individual correlations for each of the fifty-one aspects. (Kendall tau, or tau) This procedure was selected as it accommodates a large number of tied ranks to a greater extent than does Spearman rho. The number of pairs of data eligible for inclusion in these calculations was never lower than 120, therefore it was assumed a great number of tied ranks would occur.

Tables 12, 13, 14 and 15 present the results of fifty-one inter-individual correlations between: a) satisfaction levels and preferred-perceived discrepancy levels, and b) satisfaction levels and employer-employee discrepancy levels. Fifty of the fifty-one correlations of satisfaction and preferred-perceived discrepancy were significant at the .001 level. Only two of the correlations were not significant at the .001 level. One of the significant correlations (for the aspect "extent of your teaching assignment in activity courses;" .01 level) was negative. The mean inter-individual Kendall

TABLE 12

INTER INDIVIDUAL KENDALL RANK ORDER CORRELATIONS BETWEEN
SATISFACTION LEVELS ON COACHING JOB-SPECIFIC
ASPECTS AND A) PREFERRED-PERCEIVED
DISCREPANCIES AND B) EMPLOYER-
EMPLOYEE DISCREPANCIES FOR
THE SAME ITEMS

	Satisfaction vs Preferred - Perceived Discrepancy	Satisfaction vs Employer - Employee Discrepancy
1. number of practice hours	.4197 ***	.1527 **
2. amount of time available for practice	.6332 ***	.1925 ***
3. number of hours of preparation	.3990 ***	.3427 ***
4. quality of physical facilities available for practice	.6914 ***	.2196 ***
5. effectiveness of eligibility regulations	.5763 ***	.3230 ***
6. freedom of control over team operations	.3049 ***	.1320 *
7. pressure to win from superiors	-.0252 N.S.	-.1351 *
8. quality of fellow team coaches	.4456 ***	.2394 ***
9. amount of funds available for team activities	.6176 ***	.3129 ***
10. quality of available athletes	.6368 ***	.1540 **
11. level of league competition available	.5730 ***	.3429 ***
12. opportunity for advancement in academic rank through coaching	.6101 ***	.2347 ***
13. opportunity for recognition from colleagues through coaching	.3950 ***	.1881 ***
14. opportunity for personal growth through coaching	.4434 ***	.1562 **

* Significant at the .05 level
 ** Significant at the .01 level
 *** Significant at the .001 level
 N.S. Not Significant

$\bar{X} = .4837$

$\bar{X} = .2233$

TABLE 13

KENDALL RANK ORDER CORRELATIONS BETWEEN SATISFACTION LEVELS
ON TEACHING JOB-SPECIFIC ASPECTS AND A) PREFERRED-
PERCEIVED DISCREPANCIES AND B) EMPLOYER-
EMPLOYEE DISCREPANCIES FOR THE
SAME ITEMS

	Satisfaction vs Preferred - Perceived Discrepancy	Satisfaction vs Employer - Employee Discrepancy
1. quality of undergraduates receiving degrees	.4821 ***	.2592 ***
2. quality of graduates receiving degrees	.3573 ***	.1323 **
3. extent of "skills" content in undergraduate program	.3117 ***	.1409 ***
4. extent of "theory" content in undergraduate program	.3048 ***	.2163 ***
5. extent of your teaching assignment in the undergraduate program	.0139 N.S.	-.0259 N.S.
6. extent of your teaching assignment in the graduate program	.3213 ***	.1822 **
7. extent of your teaching assignment in activity courses	-.0946 *	-.1031 **
8. extent of your teaching assignment in lecture courses	.1697 ***	.1683 ***
9. adequacy of facilities for classes	.5760 ***	.2789 ***
10. freedom to select course content and teaching methods	.2229 ***	.0816 *
11. relevancy of curriculum to the type of jobs available to degree holders	.4192 ***	.1468 ***
12. opportunity for advancement in academic rank through teaching	.5089 ***	.2701 ***
13. opportunity for recognition from colleagues through teaching	.5013 ***	.2493 ***
14. opportunity for personal growth through teaching	.3993 ***	.2755 ***
	$\bar{X} = .3345$	$\bar{X} = .1665$
* Significant at the .05 level		
** Significant at the .01 level		
*** Significant at the .001 level		
N.S. Not Significant		

TABLE 14

KENDALL RANK ORDER CORRELATIONS BETWEEN SATISFACTION LEVELS
ON RESEARCH JOB-SPECIFIC ITEMS AND A) PREFERRED-
PERCEIVED DISCREPANCIES AND B) EMPLOYER-
EMPLOYEE DISCREPANCIES FOR THE
SAME ITEMS

	Satisfaction vs Preferred - Perceived Discrepancy	Satisfaction vs Employer - Employee Discrepancy
1. amount of funds available for research	.4762 ***	.2006 ***
2. amount of time available for research	.5921 ***	.2347 ***
3. quality of facilities and equipment available for research	.6651 ***	.3369 ***
4. amount of encouragement by academic members of staff for you to do research	.5464 ***	.3567 ***
5. extent of participation with you in research by colleagues in your field and on your staff	.5814 ***	.3388 ***
6. amount of support for your research by administrative personnel on your staff	.5710 ***	.3466 ***
7. relevancy of your research to societal needs	.3582 ***	.0136 N.S.
8. opportunity for advancement in academic rank through research	.2663 ***	.1521 **
9. opportunity for recognition from colleagues through research	.3468 ***	.2917 ***
10. opportunity for personal growth through research	.2917 ***	.1300 **
	$\bar{X} = .4695$	$\bar{X} = .2402$

* Significant at the .05 level
 ** Significant at the .01 level
 *** Significant at the .001 level
 NS Not Significant

TABLE 15

KENDALL RANK ORDER CORRELATIONS BETWEEN SATISFACTION LEVELS
ON COMMUNITY INVOLVEMENT JOB-SPECIFIC ASPECTS AND
A) PREFERRED-PERCEIVED DISCREPANCY AND
B) EMPLOYER-EMPLOYEE DISCREPANCY
FOR THE SAME ASPECTS

	Satisfaction vs Preferred - Perceived Discrepancy	Satisfaction vs Employer - Employee Discrepancy
1. amount of time available to become involved with work related committees	.4700 ***	.2165 ***
2. amount of time available to become involved with committees of local, provincial, or national professional organizations	.4985 ***	.2541 ***
3. amount of funds available to become involved with committees of provincial and national professional organizations	.4926 ***	.2656 ***
4. extent of your share in decisions affecting department affairs	.4588 ***	.3423 ***
5. extent of your share in decisions affecting local professional organization affairs	.4182 ***	.1988 ***
6. extent of your share in decisions affecting provincial professional organization affairs	.3961 ***	.1919 ***
7. extent of your share in decisions affecting national professional organization affairs	.4537 ***	.1642 ***
8. opportunity for advancement in academic rank through involvement in work related committees	.4223 ***	.3029 ***
9. opportunity for advancement in academic rank through involvement in local, provincial, or national professional organization committees	.4432 ***	.2796 ***
10. opportunity for recognition from colleagues through involvement in work related committees	.4359 ***	.3024 ***
11. opportunity for recognition from colleagues through involvement in local, provincial, or national professional organization committees	.4339 ***	.2589 ***
12. opportunity for personal growth through involvement in work related committees	.3569 ***	.1751 ***
13. opportunity for personal growth through involvement in local, provincial, or national professional organization committees	.3730 ***	.1668 ***
	$\bar{X} = .4348$	$\bar{X} = .2399$

* Significant at the .05 level

** Significant at the .01 level

*** Significant at the .001 level

N.S. Not Significant

rank order correlation coefficient over all fifty-one items was plus 0.4275. In view of these results Hypothesis One was rejected for fifty of the fifty-one job aspects -- there was a significant relationship between level of satisfaction and preferred-perceived discrepancy.

Similar results were found when Hypothesis Two was tested using the same procedure. Two correlation coefficients were not significant at the .05 level or lower and a fewer number of correlation coefficients were significant at the .001 level. However, forty-nine of the fifty-one coefficients were significant at the .05 level and as a result Hypothesis Two was rejected -- there was a significant relationship between satisfaction level and employer-employee discrepancy.

In order to better understand the relationship between satisfaction levels and discrepancy levels the data from selected job aspects was subjected to analysis by the SPSS SUBPROGRAM FASTABS. This produced a table display of satisfaction and discrepancy levels. The results are represented graphically in Figures 2 and 3. Figures 2 and 3 illustrate that as the discrepancy decreased, the level of satisfaction increased. In terms of correlation coefficients, this relationship was represented by a positive correlation.

Subsequent to the analysis on the basis of inter-individual correlations an analysis on the basis of intra-individual correlations was performed. This resulted in two sets of 314 correlations, that is, a correlation coefficient for each respondent was derived on the basis of levels of satisfaction and discrepancy over a possible fifty-one items. This meant that a maximum of fifty-one pairs of data could be used to derive each correlation. It was rare that

FIGURE 2

MEAN SATISFACTION LEVEL FOR EACH LEVEL OF PREFERRED-PERCEIVED AND EMPLOYER-EMPLOYEE DISCREPANCY FOR THE JOB-SPECIFIC ITEM 'QUALITY OF PHYSICAL FACILITIES AVAILABLE' IN THE GENERAL WORK AREA OF COACHING.

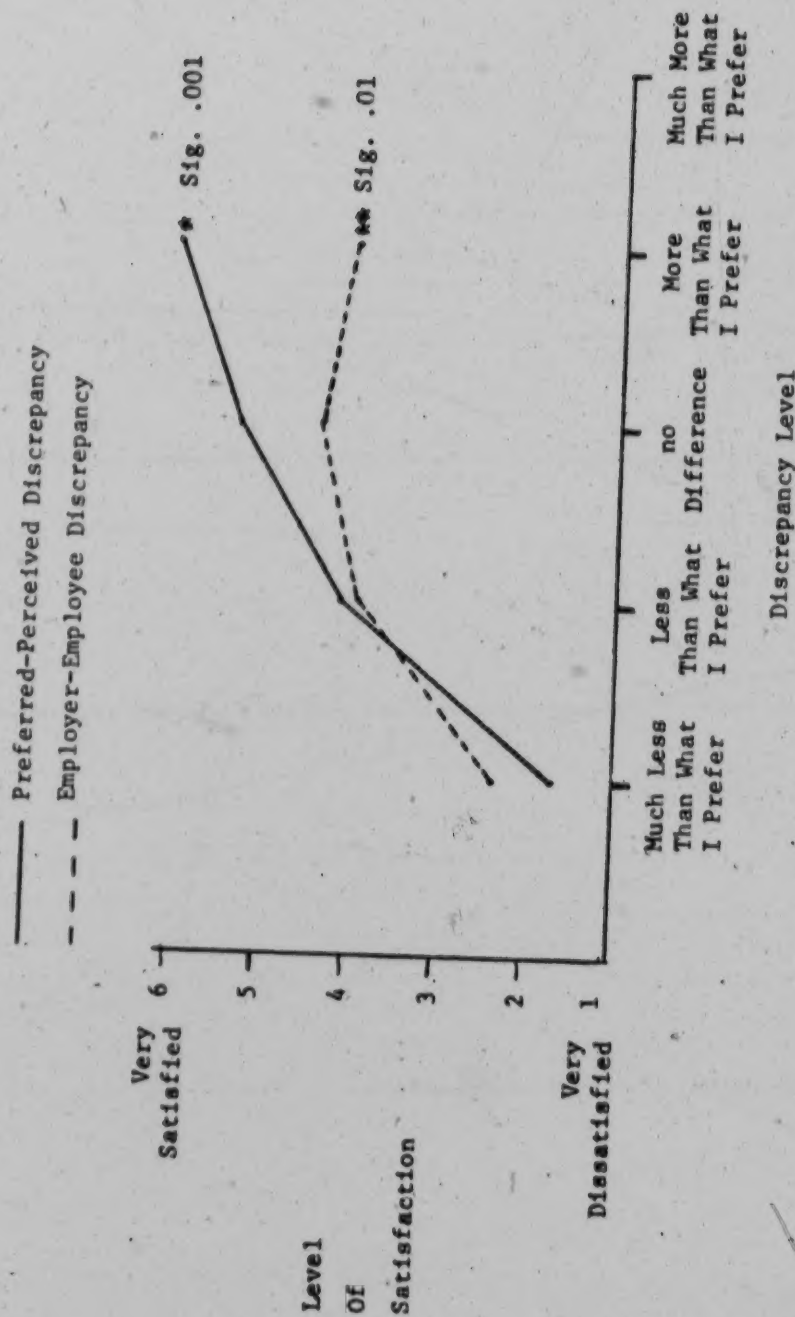
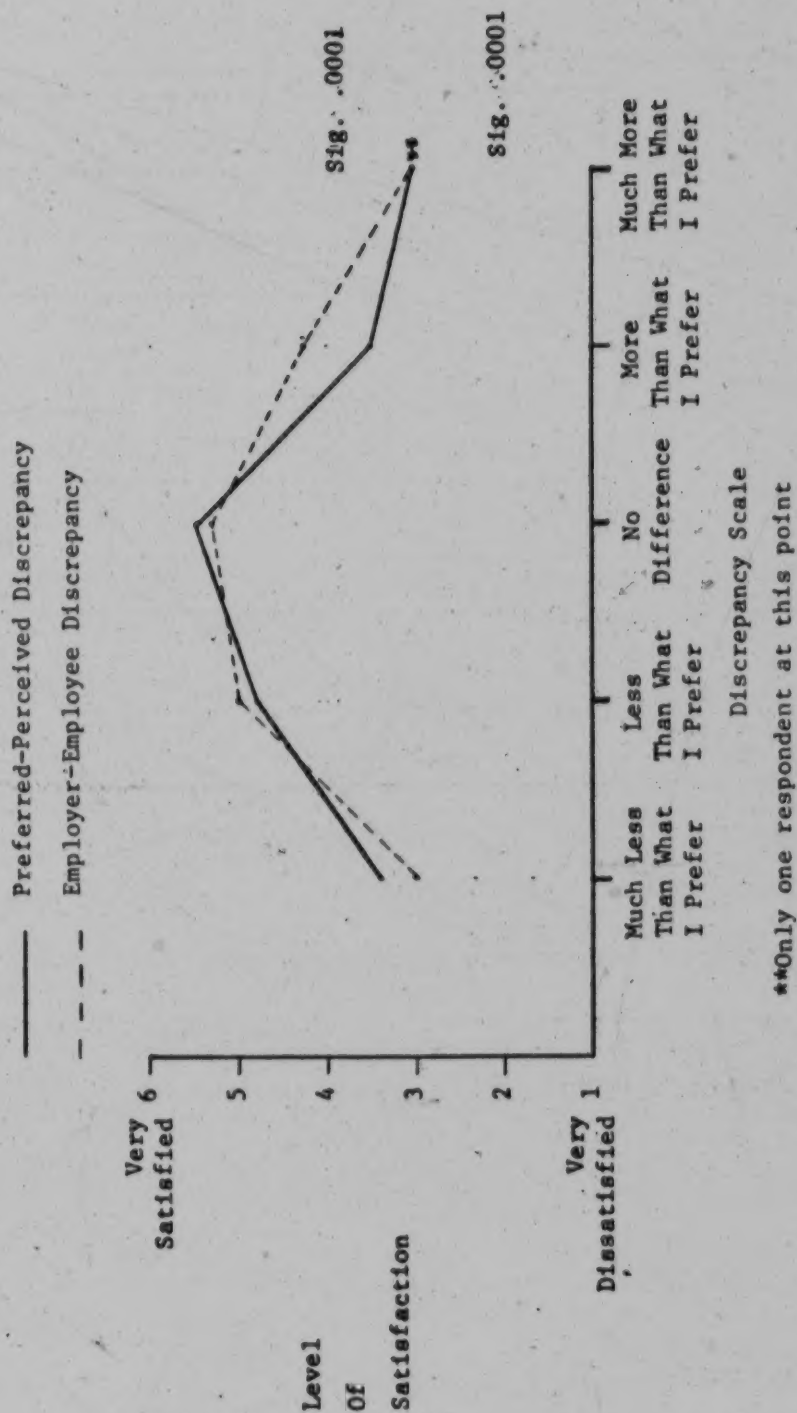


FIGURE 3

MEAN SATISFACTION LEVEL FOR EACH LEVEL OF PREFERRED-PERCEIVED AND EMPLOYER-EMPLOYEE DISCREPANCY FOR THE JOB-SPECIFIC ITEM 'PRESSURE TO WIN FROM SUPERIORS' IN THE GENERAL WORK AREA OF COACHING



fifty-one items were used as the majority of individuals chose not to provide responses for several items.

A summary of the results by university is presented in Table 16. It can be noted that both Spearman rank order correlations (ρ) and Kendall rank order correlations (τ) have been reported. This was done for two reasons. Firstly, it was assumed there would be relatively few tied ranks as a maximum of fifty-one pieces of data could be used. In this sense the ρ appeared to be more appropriate. Secondly, Seigel (1956: 219) has suggested two correlations are not numerically comparable on a direct basis. In this present study it was intended to make a comparison between inter-individual and intra-individual correlations thus τ has been reported.

Of the 314 intra-individual ρ 's between satisfaction and preferred-perceived discrepancy, thirty-three failed to be significant at the .05 level or lower. On the other hand, 121 of 314 similar intra-individual ρ 's between satisfaction and employer-employee discrepancy failed to be significant at the .05 level or lower. On the basis of this evidence, support was found for the rejection of Hypothesis One. However, rejection of Hypothesis Two on the basis of the intra-individual correlations was somewhat tenuous.

Concomitant with the original intentions of the study a third approach to testing the concept of discrepancy as it relates to satisfaction was employed which made use of responses to questions concerning the importance of and satisfaction with the four general areas of work. Respondents were asked to rate each of the four general areas of work -- coaching, community involvement, research and teaching: a) on the basis of their perception of the importance

TABLE 16

MEAN KENDALL RANK ORDER AND SPEARMAN RANK ORDER INTRA-INDIVIDUAL CORRELATIONS BETWEEN a) SATISFACTION LEVEL AND PREFERRED-PERCEIVED DISCREPANCY LEVEL AND b) SATISFACTION LEVEL AND EMPLOYER-EMPLOYEE DISCREPANCY LEVEL FOR EACH OF THE UNIVERSITIES IN THE SAMPLE

U*	SATISFACTION vs PREFERRED-PERCEIVED DISCREPANCY			SATISFACTION vs EMPLOYER-EMPLOYEE DISCREPANCY		
	n**	rho	tau	n**	rho	tau
1	8	.5184	.6966	8	.2970	.2631
2	8	.4919	.4515	8	.3245	.2995
3	7	.4796	.4418	7	.3077	.2306
4	11	.4990	.4495	11	.2798	.4495
5	5	.7136	.6453	5	.5010	.4511
6	10	.6063	.5575	9	.2305	.2106
7	11	.3274	.3066	11	.2416	.2203
8	11	.4892	.4408	11	.3681	.3344
9	14	.5302	.4925	11	.4484	.3979
10	5	.8712	.6804	4	.4637	.4158
11	3	.4591	.7542	2	.4670	.4259
12	3	.5529	.5082	3	.2749	.2591
13	6	.4214	.2941	5	.3382	.3163
14	19	.5693	.5184	16	.2635	.2385
15	7	.5772	.5130	7	.3918	.3421
16	11	.5052	.4634	7	.4370	.3996
17	11	.4462	.3993	9	.3223	.2879
18	34	.5891	.5260	31	.4236	.3707
19	11	.5641	.5309	8	.4497	.4640
20	7	.6327	.5828	7	.4470	.3726
21	4	.5671	.5159	4	.3207	.2902
22	11	.4579	.4284	9	.4291	.3868
23	13	.5038	.4613	13	.3726	.3434
24	16	.4817	.4373	10	.3005	.2763
25	24	.5079	.4622	23	.3218	.2894
26	13	.5432	.4924	13	.4281	.4051
27	27	.4418	.3996	24	.2922	.2514
GRAND MEAN		.5190	.4742		.4742	.3354

*Number of each university involved in the study.

**Number of respondents from each university.

attached to the area by their employer and b) on the basis of the importance attached to the area by themselves. A new discrepancy measure was generated by subtracting the numerical response to the latter from the numerical response to the former. This procedure yielded a score which could range from minus four to plus four.

The scale and its meanings were interpreted as follows:

a) minus four to minus one: this indicated that the respondent felt the employer rated the work area more important than did he.

b) zero: this indicated that the respondent felt he and his employer affixed the same importance rating to the area of work.

c) plus one to plus four: this indicated that the respondent felt the employer rated the work area as less important than did he.

Preliminary investigation of the two importance ratings indicated significant, but not extremely high, correlations between the two measures. (Table 17) This suggested to the investigator that it would be appropriate to collapse the importance discrepancy categories of minus four to minus one into a single category.

Similarly, importance discrepancies plus one to plus four were combined into a single category.

Chi square analysis was then performed which made two comparisons for each of the newly generated importance discrepancy variables. Firstly, the new importance discrepancy values were plotted against the satisfaction ratings for each of the four general areas of work. Secondly, the new importance discrepancy values for each of the four general areas of work were plotted against satisfaction for the 'job as a whole.' The results of these procedures are presented in Figures 4 and 5 respectively.

TABLE 17

KENDALL RANK ORDER CORRELATIONS BETWEEN ADMINISTRATORS' IMPORTANCE RATING AS PERCEIVED BY RESPONDENTS AND RESPONDENTS' SELF-REPORTED IMPORTANCE RATING FOR THE FOUR GENERAL AREAS OF WORK

WORK AREA	KENDALL TAU	SIGNIFICANCE	n
a) COACHING	.4175	.001	272
b) COMMUNITY INVOLVEMENT	.4069	.001	303
c) RESEARCH	.2704	.001	297
d) TEACHING	.1708	.001	313

In reference to Figure 4 the significance levels of the chi square analysis as illustrated by the graph lines of mean importance discrepancy scores indicated little difference existed in satisfaction levels for respondents at each of the importance discrepancy levels except in the relationship plotted for the general area of coaching. This suggested that satisfaction with coaching was related to the discrepancy in the importance attached to coaching by the respondent and the respondent's perception of the importance attached to coaching by his employer. In this case 'no discrepancy' was related to higher levels of satisfaction.

Figure 5 illustrates the relationship between satisfaction with the 'job as a whole' and the importance discrepancy for each general area of work. While the graph lines presented a more consistent relationship for all four general areas of work the only relationship significant beyond the .05 level was that for the area of teaching. In this case satisfaction with the job as a whole was greater when no

FIGURE 4

MEAN SATISFACTION SCORES FOR THE FOUR GENERAL AREAS OF WORK AND THE PERCEIVED DISCREPANCY BETWEEN ADMINISTRATOR'S AND RESPONDENT'S RATING OF IMPORTANCE OF THE FOUR GENERAL AREAS OF WORK

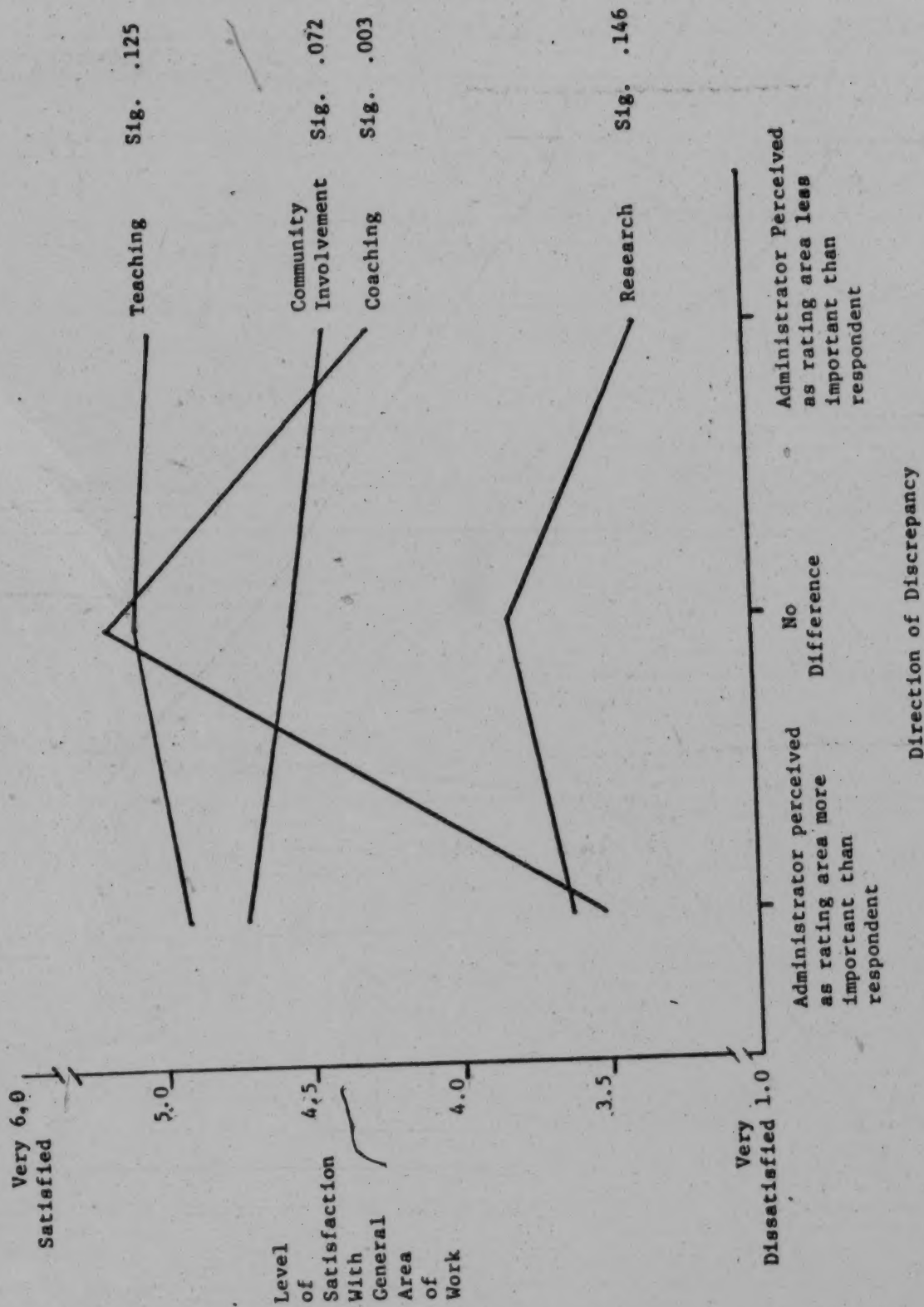
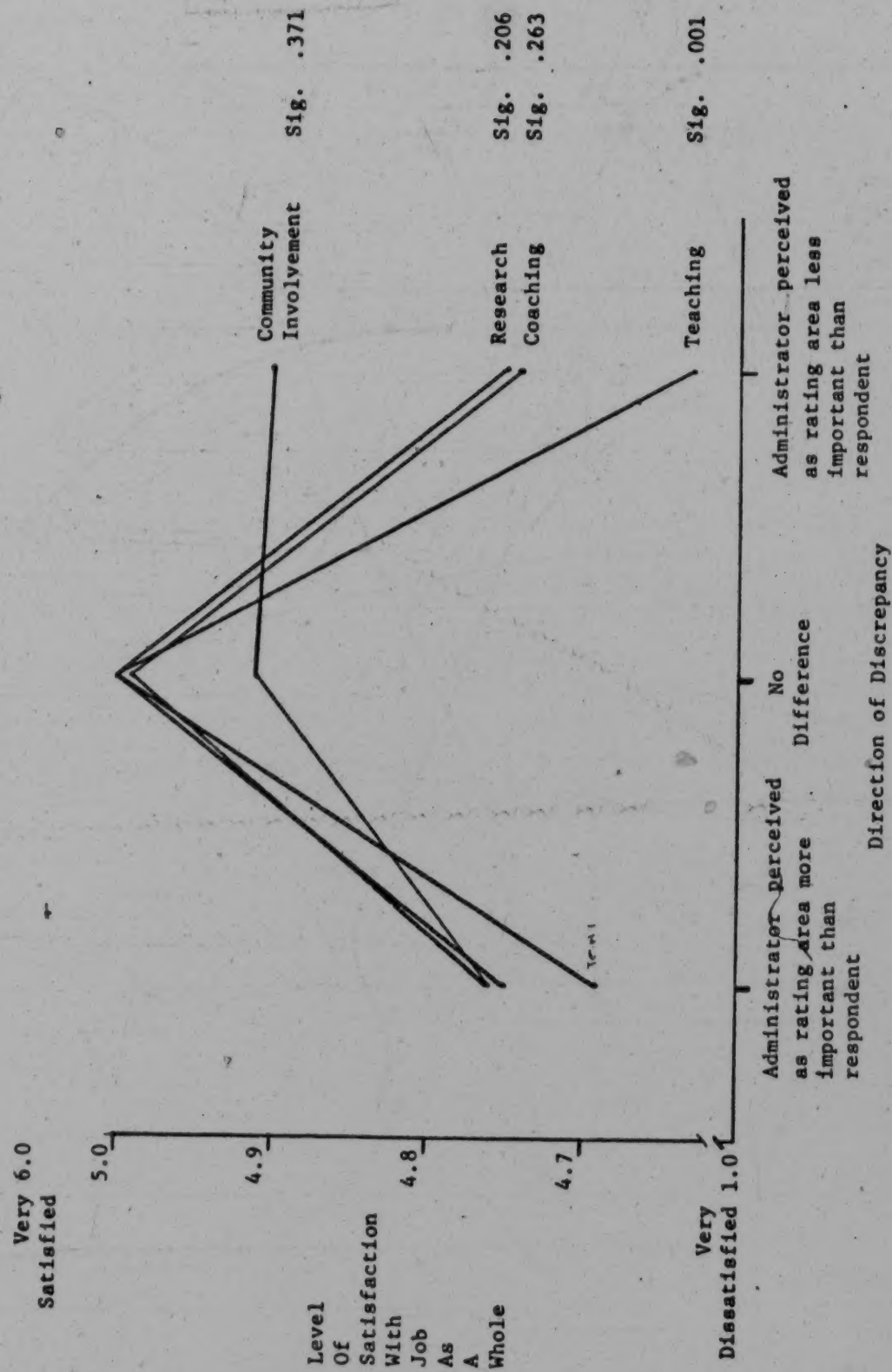


FIGURE 5

MEAN SATISFACTION SCORES FOR THE JOB AS A WHOLE AND THE PERCEIVED DISCREPANCY
BETWEEN ADMINISTRATOR'S AND RESPONDENT'S RATING OF IMPORTANCE OF
THE FOUR GENERAL AREAS OF WORK



difference in importance ratings for teaching was perceived by the respondent.

In view of the fact that chief administrators also reported the level of importance they attached to each of the four general areas of work, correlations were performed between these importance ratings and the importance ratings attached to the four general areas of work by each respondent. (Table 18) These correlations all proved to be significant but low in absolute value. As the correlations were low four new variables were generated on the basis of discrepancy between administrators' and respondents' importance ratings for each of the four general areas of work. The new variable values resulted from subtracting the respondent's importance rating from the importance rating given by the chief administrator in physical education at the same university for each of the four general areas of work. These new variables were subjected to chi square analysis in comparison with satisfaction levels for each of the four general areas of work and with

TABLE 18

KENDALL RANK ORDER CORRELATIONS BETWEEN ADMINISTRATOR'S
SELF-REPORTED IMPORTANCE RATING AND RESPONDENT'S
SELF-REPORTED IMPORTANCE RATING FOR THE FOUR
GENERAL WORK AREAS

WORK AREA	KENDALL TAU	SIGNIFICANCE	n
a) COACHING	.2347	.001	256
b) COMMUNITY INVOLVEMENT	.1440	.001	299
c) RESEARCH	.2423	.001	294
d) TEACHING	.1318	.001	308

levels of satisfaction for the 'job as a whole.'

The analysis of the new importance discrepancy variables and the satisfaction levels for the 'job as a whole' yielded no results which were significant at the .05 level or less. (Table 38, Appendix E) However, when the analysis was performed between the discrepancy variable and satisfaction levels for each general area of work the relationships for two of the areas, coaching and research, were significant. Analysis involving satisfaction scores for the other two general areas proved not to be significant. Figure 6 graphically represents these two relationships. The graph lines indicated a drop in satisfaction when the administrator rated the area less important than did the respondent.

V - SPECIFIC AND OVER-ALL MEASURES OF SATISFACTION

Hypothesis Three: Self-reported levels of satisfaction with the job as a whole will not be significantly related to self-reported levels of satisfaction for each of the fifty-one job aspects.

Hypothesis Four: Self-reported level of satisfaction with each of the four general areas of work (coaching, community involvement, research, and teaching) will not be significantly related to self-reported levels of satisfaction with specific work aspects within the respective general area of work.

Hypothesis Five: Self-reported level of satisfaction with the job as a whole will not be significantly related to self-reported levels of satisfaction with each of the four general work areas.

Hypothesis three was tested by use of the Kendall rank order correlation procedure between individuals. Table 19 presents the

FIGURE 6

MEAN SATISFACTION LEVELS FOR THE THREE LEVELS OF DISCREPANCY BETWEEN ADMINISTRATOR'S
AND RESPONDENT'S IMPORTANCE RATING FOR THE GENERAL AREAS OF WORK OF
COACHING AND RESEARCH

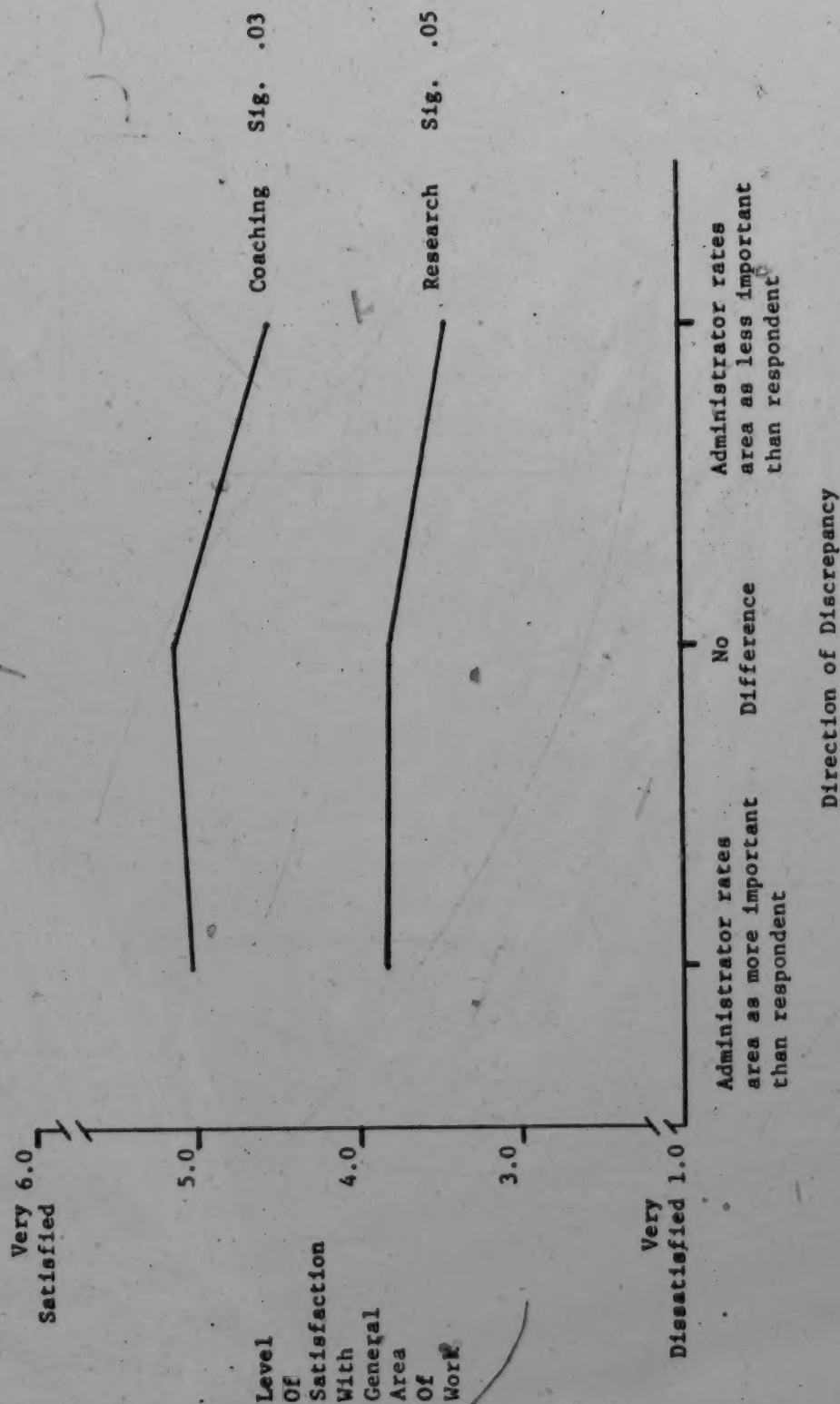


TABLE 19

KENDALL RANK ORDER CORRELATIONS BETWEEN SELF-REPORTED LEVEL OF
SATISFACTION WITH JOB AS A WHOLE AND EACH OF THE
FIFTY-ONE SPECIFIC JOB ASPECTS

JOB ASPECT	KENDALL TAU	SIG.	n
1. number of practice hours	.1774	.001	131
2. amount of time available for practice	.2193	.001	131
3. number of hours of preparation	.1829	.001	126
4. quality of physical facilities available for practice	.0676	.126	131
5. effectiveness of eligibility regulations	.0267	.329	126
6. freedom of control over team operations	.3789	.001	131
7. pressure to win from superiors	.2558	.001	128
8. quality of fellow team coaches	.1155	.030	122
9. amount of funds available for team activities	.2322	.001	130
10. quality of available athletes	.2139	.001	130
11. level of league competition available	.1220	.019	131
12. opportunity for advancement in academic rank through coaching	.2922	.001	122
13. opportunity for recognition from colleagues through coaching	.3648	.001	128
14. opportunity for personal growth through coaching	.2968	.001	131
15. quality of undergraduates receiving degrees	.1856	.001	304
16. quality of graduates receiving degrees	.1867	.001	152
17. extent of "skills" content in undergraduate program	.1320	.001	291
18. extent of "theory" content in undergraduate program	.2668	.001	295
19. extent of your teaching assignment in the undergraduate program	.2500	.001	302
20. extent of your teaching assignment in the graduate program	.1376	.001	122

TABLE 19
(Continued)

JOB ASPECT	KENDALL TAU	SIG.	n
21. extent of your teaching assignment in activity courses	.2940	.001	259
22. extent of your teaching assignment in lecture courses	.2683	.001	290
23. adequacy of facilities for classes	.0845	.014	304
24. freedom to select course content and teaching methods	.2373	.001	305
25. relevancy of curriculum to the type of jobs available to degree holders	.2454	.001	296
26. opportunity for advancement in academic rank through teaching	.1894	.001	300
27. opportunity for recognition from colleagues through teaching	.2381	.001	300
28. opportunity for personal growth through teaching	.2556	.001	304
29. amount of funds available for research	.2482	.001	171
30. amount of time available for research	.1842	.001	188
31. quality of facilities and equipment available for research	.1012	.024	174
32. amount of encouragement by academic members of staff for you to do research	.1991	.001	189
33. extent of participation with you in research by colleagues in your field and on your staff	.2440	.001	173
34. amount of support for your research by administrative personnel on your staff	.2096	.001	175
35. relevancy of your research to societal needs	.3572	.001	167
36. opportunity for advancement in academic rank through research	.2399	.001	175
37. opportunity for recognition from colleagues through research	.2043	.001	179
38. opportunity for personal growth through research	.3568	.001	180

TABLE 19
(Continued)

JOB ASPECT	KENDALL TAU	SIG.	n
39. amount of time available to become involved with work related committees	.1609	.001	267
40. amount of time available to become involved with committees of local, provincial, or national professional organizations	.1730	.001	259
41. amount of funds available to become involved with committees of provincial and national professional organizations	.1361	.001	245
42. extent of your share in decisions affecting department affairs	.2188	.001	273
43. extent of your share in decisions affecting local professional organization affairs	.2347	.001	229
44. extent of your share in decisions affecting provincial professional organization affairs	.1699	.001	222
45. extent of your share in decisions affecting national professional organization affairs	.0894	.026	215
46. opportunity for advancement in academic rank through involvement in work related committees	.2071	.001	243
47. opportunity for advancement in academic rank through involvement in local, provincial or national professional organization committees	.1966	.001	227
48. opportunity for recognition from colleagues through involvement in work related committees	.1807	.001	247
49. opportunity for recognition from colleagues through involvement in local, provincial or national professional organization committees	.1686	.001	232
50. opportunity for personal growth through involvement in work related committees	.2571	.001	250
51. opportunity for personal growth through involvement in local, provincial, or national professional organization committees	.2376	.001	244

results of this analysis. A high percentage of the correlations (forty-nine out of fifty-one) were significant at the .05 level or better and thus the results tended to support the rejection of Hypothesis Three -- there was a relationship between a global indication of job satisfaction and satisfaction with job specific items.

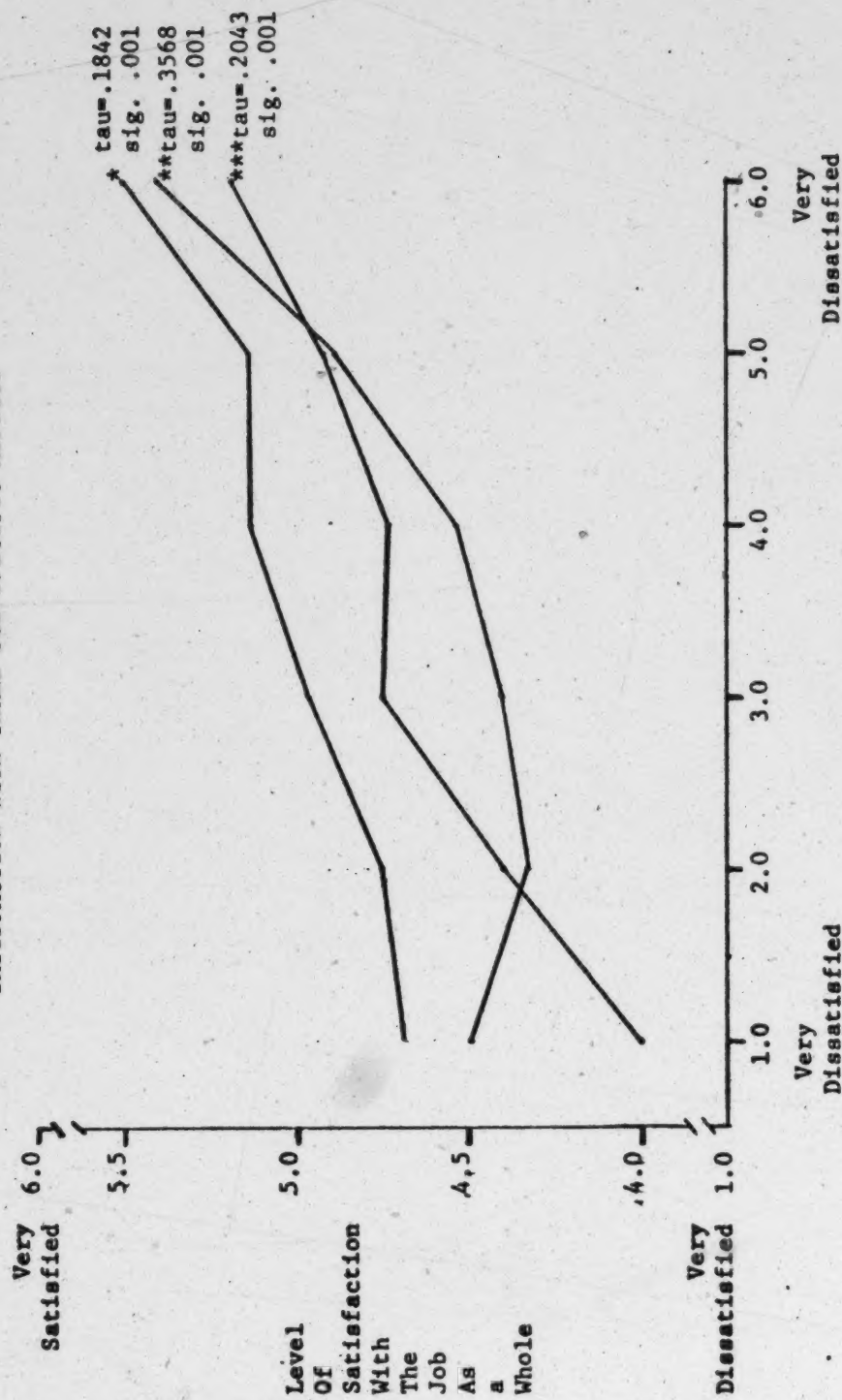
Mean correlations between satisfaction with the job as a whole and items within the general areas of work were calculated as .2104, .2123, .2345, and .1870 for coaching, teaching, research, and community involvement respectively.

It is important to note that while the majority of correlations were significant there was a difference noted when the relationships were viewed and compared graphically after chi square analysis. Figure 7 illustrates the difference between correlation coefficients of .1842, .2043 and a coefficient of .3568 which were all significant at the .001 level.

Hypothesis Four was tested using the Kendall rank order correlation procedure. In this analysis the level of satisfaction for a general area of work was correlated with each of the job-specific aspects within that general area over all individuals. Therefore, a total of 314 pairs of data could have been used to compute the correlation. Tables 20, 21, 22, and 23 present the results of these correlations for each of the fifty-one job-specific aspects in the general areas of coaching, teaching, research and community involvement respectively. Similar to the correlations between the satisfaction levels for 'job as a whole' and job-specific items, correlations were relatively low but generally significant at the .05 level or better. Also parallel to the last analysis Figure 8 indicates graphically how

FIGURE 7

MEDIAN SATISFACTION LEVEL WITH THE JOB AS A WHOLE FOR EACH LEVEL OF SATISFACTION WITH THREE JOB-SPECIFIC ASPECTS



Satisfaction With Job-Specific Aspect

*amount of time available for research

**opportunity for personal growth through research

***opportunity for recognition from colleagues through research

TABLE 20

KENDALL RANK ORDER CORRELATIONS BETWEEN SELF-REPORTED SATISFACTION
WITH THE GENERAL AREA OF COACHING AND A) SATISFACTION LEVELS
AND B) PREFERRED-PERCEIVED DISCREPANCY FOR EACH OF THE
14 JOB-SPECIFIC ASPECTS WITHIN THE GENERAL
WORK AREA OF COACHING

	Satisfaction With Coaching in General vs Satisfaction with job-specific Coaching Aspects	Satisfaction With Coaching in General vs P-P Discrepancy with job-specific Coaching Aspects
1. number of practice hours	.3320 ***	.0344 N.S.
2. amount of time available for practice	.2542 ***	.0873 N.S.
3. number of hours of preparation	.3089 ***	-.0336 N.S.
4. quality of physical facilities available for practice	.1107 *	.0307 N.S.
5. effectiveness of eligibility regulations	.0196 N.S.	-.0929 N.S.
6. freedom of control over team operations	.3642 ***	.2202 ***
7. pressure to win from superiors	.1970 ***	-.0897 N.S.
8. quality of fellow team coaches	.1826 **	-.0269 N.S.
9. amount of funds available for team activities	.2045 ***	.0224 N.S.
10. quality of available athletes	.2647 ***	.1116 *
11. level of league competition available	.1963 ***	.0259 N.S.
12. opportunity for advancement in academic rank through coaching	.1735 **	.1044 *
13. opportunity for recognition from colleagues through coaching	.3338 ***	.1563 **
14. opportunity for personal growth through coaching	.2961 ***	.1768 ***

* Significant at the .05 level
** Significant at the .01 level
*** Significant at the .001 level
N.S. Not Significant

TABLE 21

KENDALL RANK ORDER CORRELATIONS BETWEEN SELF-REPORTED SATISFACTION
WITH THE GENERAL AREA OF TEACHING AND A) SATISFACTION LEVELS
AND B) PREFERRED-PERCEIVED DISCREPANCY FOR EACH OF THE
14 JOB-SPECIFIC ASPECTS WITHIN THE GENERAL
WORK AREA OF TEACHING

	Satisfaction With Teaching in General vs Satisfaction with job-specific Teaching Aspects	Satisfaction With Teaching in General vs P-P Discrepancy with job-specific Teaching Aspects
1. quality of undergraduates receiving degrees	.0657 *	-.0010 N.S.
2. quality of graduates receiving degrees	.0958 *	.1221 *
3. extent of "skills" content in undergraduate program	.1248 ***	-.0891 ***
4. extent of "theory" content in undergraduate program	.2361 ***	.0046 N.S.
5. extent of your teaching assignment in the undergraduate program	.2791 ***	-.0026 N.S.
6. extent of your teaching assignment in the graduate program	.1690 **	-.0958 **
7. extent of your teaching assignment in activity courses	.2662 ***	-.0084 N.S.
8. extent of your teaching assignment in lecture courses	.2588 ***	-.0354 N.S.
9. adequacy of facilities for classes	.0960 **	-.0121 N.S.
10. freedom to select course content and teaching methods	.2142 ***	.0527 N.S.
11. relevancy of curriculum to the type of jobs available to degree holders	.1946 ***	-.0885 **
12. opportunity for advancement in academic rank through teaching	.1008 **	-.1046 **
13. opportunity for recognition from colleagues through teaching	.0802 *	.0738 *
14. opportunity for personal growth through teaching	.2563 ***	.0653 *

* Significant at the .05 level

** Significant at the .01 level

*** Significant at the .001 level

N.S. Not Significant

TABLE 22

KENDALL RANK ORDER CORRELATIONS BETWEEN SELF-REPORTED SATISFACTION
WITH THE GENERAL AREA OF RESEARCH AND A) SATISFACTION LEVELS
AND B) PREFERRED-PERCEIVED DISCREPANCY FOR EACH OF THE
10 JOB-SPECIFIC ASPECTS WITHIN THE GENERAL
WORK AREA OF RESEARCH

	Satisfaction With Research in General vs Satisfaction with Job-Specific Research Aspects	Satisfaction With Research in General vs P-P Discrepancy with Job-Specific Research Aspects
1. amount of funds available for research	.2864 ***	.0849 *
2. amount of time available for research	.3569 ***	.2537 ***
3. quality of facilities and equipment available for research	.2547 ***	.1265 **
4. amount of encouragement by academic members of staff for you to do research	.2236 ***	.1286 **
5. extent of participation with you in research by colleagues in your field and on your staff	.2636 ***	.1639 ***
6. amount of support for your research by administrative personnel on your staff	.2333 ***	.1672 ***
7. relevancy of your research to societal needs	.2970 ***	.1816 ***
8. opportunity for advancement in academic rank through research	.1550 ***	-.1891 ***
9. opportunity for recognition from colleagues through research	.1540 ***	-.0451 N.S.
10. opportunity for personal growth through research	.2940 ***	.0912 *

* Significant at the
** Significant at the .01 level
*** Significant at the .001 level
N.S. Not Significant

TABLE 23

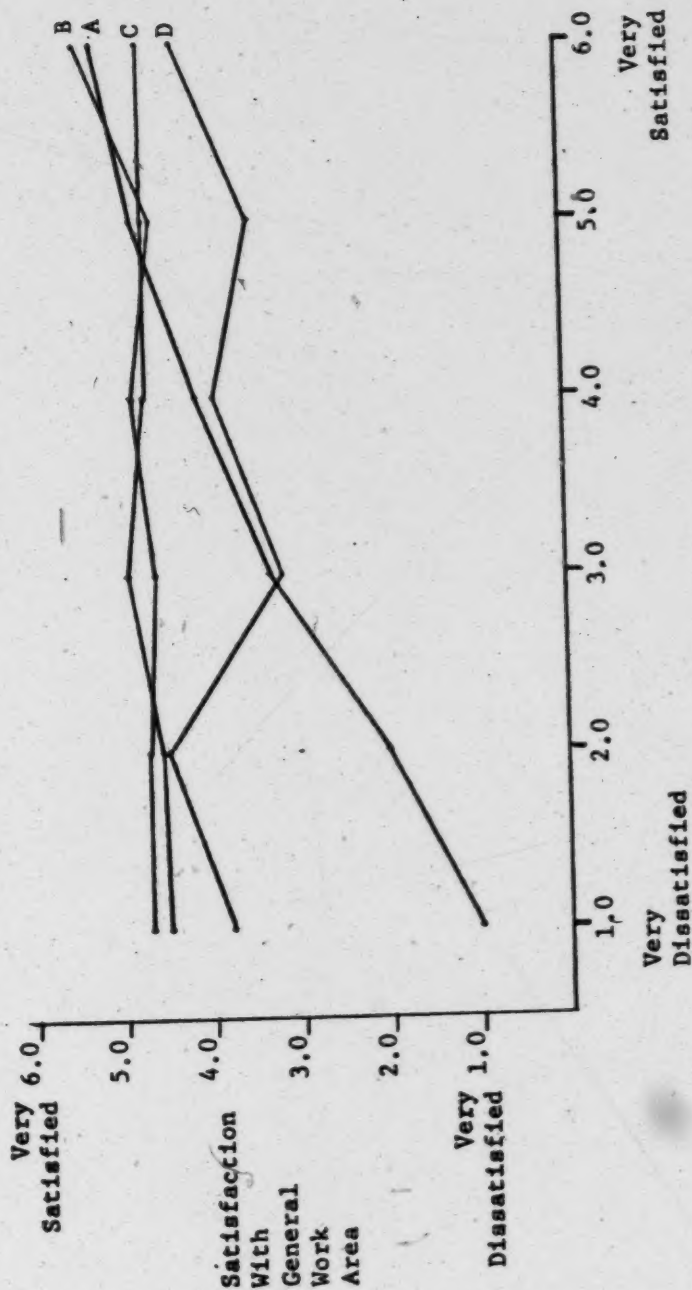
KENDALL RANK ORDER CORRELATIONS BETWEEN SELF-REPORTED SATISFACTION WITH THE GENERAL AREA OF COMMUNITY INVOLVEMENT AND A) SATISFACTION AND B) PREFERRED-PERCEIVED DISCREPANCY FOR EACH OF THE 13 JOB-SPECIFIC ASPECTS WITHIN THE GENERAL WORK AREA OF COMMUNITY INVOLVEMENT

	Satisfaction With Community Involvement in General vs Satisfaction with Job- Specific Community Involvement Aspects	Satisfaction With Community Involvement in General vs P-P Discrepancy With Job-Specific Community Involvement Aspects
1. amount of time available to become involved with work related committees	.1450 ***	.0523 N.S.
2. amount of time available to become involved with committees of local, provincial, or national professional organizations	.1979 ***	.1135 **
3. amount of funds available to become involved with committees of provincial and national professional organizations	.0597 N.S.	-.1328 ***
4. extent of your share in decisions affecting department affairs	.1037 **	.0818 *
5. extent of your share in decisions affecting local professional organization affairs	.3111 ***	.1714 ***
6. extent of your share in decisions affecting provincial professional organization affairs	.2257 ***	.0647 N.S.
7. extent of your share in decisions affecting national professional organization affairs	.2663 ***	.0704 N.S.
8. opportunity for advancement in academic rank through involvement in work related committees	.0538 N.S.	-.0854 *
9. opportunity for advancement in academic rank through involvement in local, provincial, or national professional organization committees	.0241 N.S.	-.1175 **
10. opportunity for recognition from colleagues through involvement in work related committees	.0362 N.S.	-.0267 N.S.
11. opportunity for recognition from colleagues through involvement in local, provincial, or national professional organization committees	.0129 N.S.	-.0044 N.S.
12. opportunity for personal growth through involvement in work related committees	.1986 ***	-.0592 N.S.
13. opportunity for personal growth through involvement in local, provincial, or national professional organization committees	.1796 ***	-.0527 N.S.

* Significant at the .05 level
 ** Significant at the .01 level
 *** Significant at the .001 level
 N.S. Not Significant

FIGURE 8

MEDIAN SATISFACTION LEVEL WITH THE GENERAL WORK AREA FOR EACH LEVEL OF SATISFACTION WITH FOUR JOB-SPECIFIC ASPECTS



Satisfaction With Job-Specific Aspect

A = freedom of control over team operations ($\tau = .3642$; .001 level; χ^2 square=135; $df=25$; .00001 level)

B = funds available for provincial and national committee work ($\tau = .0597$; NS; χ^2 square=27; $df=25$; .1165 level)

C = quality of undergraduates receiving degrees ($\tau = .0657$; .05 level; χ^2 square=15; $df=25$; .930 level)

D = opportunity for advancement in academic rank through research ($\tau = .1550$; .001 level; χ^2 square=37; $df=25$; .048 level)

correlations of different magnitude varied. The variable labeled B represents a tau of .3642 and the variable labeled D represents a tau of .0657. The former was significant at the .001 level and the latter at the .05 level. On the basis of the significant correlations Hypothesis Four was rejected.

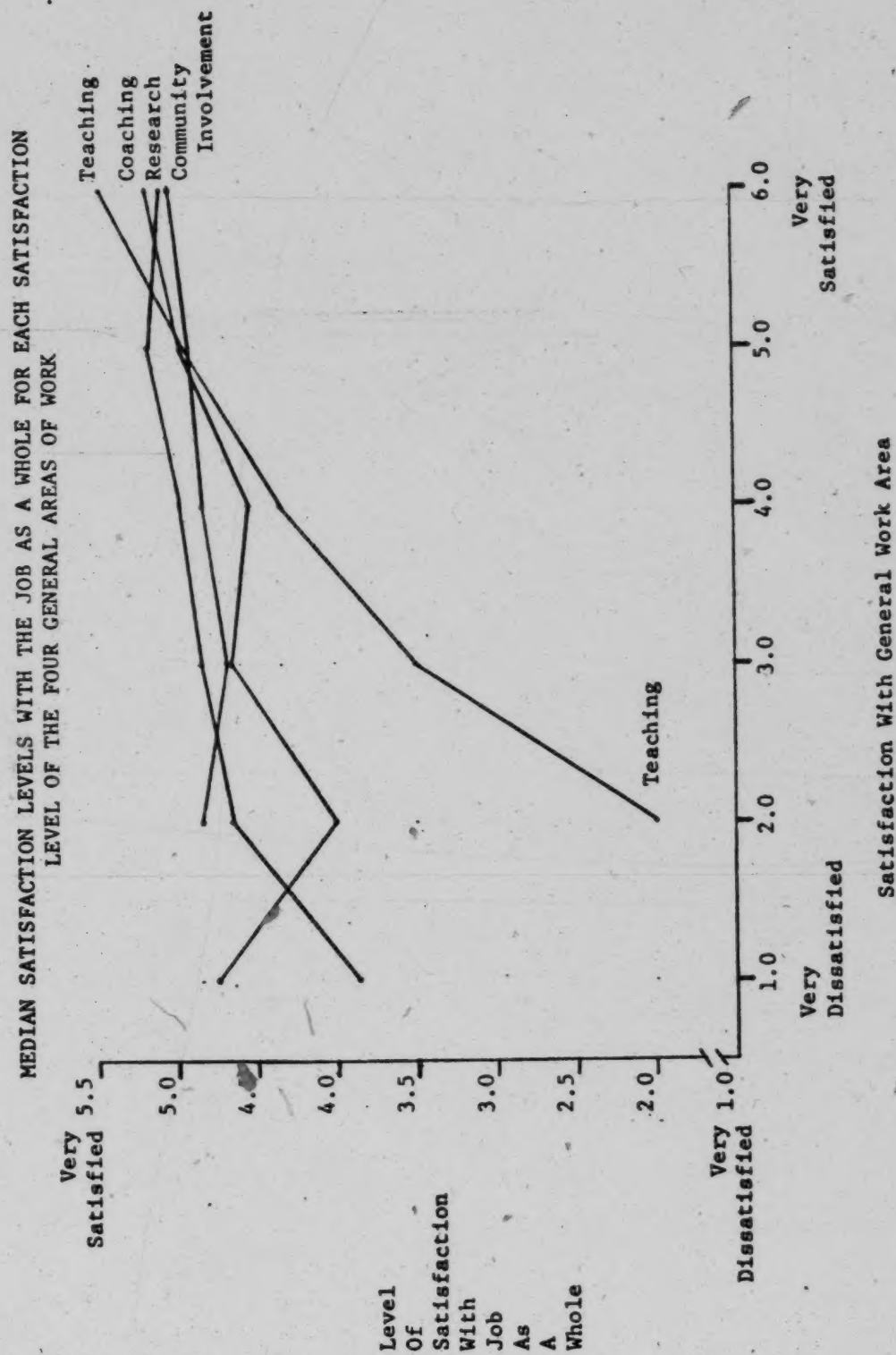
Hypothesis Five was tested using the Kendall rank order correlation method to determine if the global measure of satisfaction with the job as a whole was related to the level of satisfaction reported for each of the general areas of work. Correlations between satisfaction level with the job as a whole and satisfaction with the general area of coaching, community involvement, research, and teaching were .2932, .2374, .2868, and .3900 respectively. All were positive and significant at the .001 level. Figure 9 illustrates these relationships. Subsequent to this analysis, Hypothesis Five was rejected on the basis of the significant correlations.

VI - SATISFACTION, PREFERRED-PERCEIVED DISCREPANCY AND BIOGRAPHIC-DEMOGRAPHIC DATA

Hypothesis Six: Self-reported levels of satisfaction will not be significantly related to the various selected demographic and biographic variables listed below:

- 1) size of the institution
- 2) years as chief administrator in present position
- 3) respondents years of employment in universities while holding academic rank
- 4) holding of tenure
- 5) age

FIGURE 9



- 6) sex
- 7) level of academic rank

Hypothesis Seven: Self-reported discrepancy levels between what one prefers and what one sees as existing will not be significantly related to the selected demographic and biographic variables listed below:

- 1) size of the institution
- 2) years as chief administrator in present position
- 3) respondent's years of employment in universities while holding academic rank
- 4) holding of tenure
- 5) age
- 6) sex
- 7) academic rank held

Initial chi square analysis was performed using demographic and biographic information and self-reported levels of satisfaction for each of the four general work areas and the job as a whole. The SPSS SUBPROGRAM FASTABS produced two-way frequency tables of satisfaction levels plotted against values for each of the demographic and biographic variables being studied. The first set of analysis indicated that the six point satisfaction scale proved to be too extensive. The level of satisfaction was found to be relatively high with few responses being directed to the 'very dissatisfied' and 'quite dissatisfied' points on the scale. As a result categories one, two and three were collapsed to produce a single category representing dissatisfaction. All chi square analyses were performed again for the same demographic and biographic variables. The results of this analysis are summarized in Table 24.

TABLE 24

CHI SQUARE ANALYSIS FOR SELECTED BIOGRAPHIC AND DEMOGRAPHIC VARIABLES CROSSTABULATED WITH SATISFACTION LEVELS FOR THE GENERAL WORK AREAS OF COACHING, COMMUNITY INVOLVEMENT, RESEARCH AND TEACHING, AND THE JOB AS A WHOLE.**

DEMOGRAPHIC AND BIOGRAPHIC VARIABLES	SATISFACTION WITH				
	COACHING	COMMUNITY INVOLVEMENT	RESEARCH	TEACHING	JOB AS A WHOLE
a) Number of years the present chief administrator has been in that position	16.4642 (16) .687	22.4771 (16) .315	12.2996 (16) .905	23.4602 (12) .102	14.8474 (12) .536
b) Number of full-time-academic staff members	19.7086 (12) .073	14.4452 (12) .273	22.3136 (12) .034	26.8604 (12) .008	20.5159 (12) .058
c) Enrolment in the bachelor degree program	7.8404 (12) .798	19.6562 (12) .078	29.7644 (12) .003	12.2396 (12) .427	12.2545 (12) .426
d) Total years of university experience as a staff member	14.8994 (12) .247	12.4523 (12) .410	34.0615 (12) .0007	11.0562 (12) .524	24.8411 (12) .016
e) Holds tenure or does not hold tenure	4.2539 (3) .235	2.1936 (3) .533	5.8656 (3) .129	1.8361 (3) .607	1.3925 (3) .707
f) Age	17.7427 (18) .472	22.3339 (18) .218	26.0485 (18) .099	25.7632 (18) .105	31.2605 (18) .027
g) Sex	1.4920 (3) .684	11.3869 (3) .009	7.8904 (3) .049	5.0576 (3) .168	0.5542 (3) .907
h) Academic rank	10.5022 (12) .572	20.5195 (12) .058	38.0568 (12) .0002	17.5091 (12) .1314	21.7229 (12) .041

**Numbers in brackets refer to degrees of freedom.

As can be seen there seemed to be no consistent trends other than the fact that satisfaction with coaching in general did not correlate significantly with any of the demographic or biographic variables, and satisfaction with research in general correlated significantly with several of these variables.

The median satisfaction score for each level or category of the demographic and biographic variables was computed. This allowed the plotting of several trends in the cases where relationships were significant. Firstly, satisfaction with the 'job as a whole' increased as age and total years of university experience increased. Median satisfaction scores increased particularly for those respondents over the age of 50 years and for those respondents with eleven or more years of experience. Similarly, median satisfaction scores for the general area of research increased as total years of experience increased. The results of the analysis involving academic rank paralleled those for years of experience. Professors and associate professors had higher median satisfaction scores for both the general work aspect of research and 'the job as a whole.'

While all chi square analyses of sex and satisfaction levels did not indicate significant differences, the analysis for community involvement and research did produce significant differences. In these two cases the males were significantly more satisfied than the females. In the case of the other three analyses the median satisfaction scores for males were higher, though not significantly, than those for females.

The number of full-time academic staff and the number of students enrolled in the bachelor's degree program were variables considered to be

be indicative of the size of the organization. As such their relationship with median satisfaction levels was u-shaped in nature. The median satisfaction scores for the organizations with small and large staffs were higher than were the median satisfaction scores for organizations with a staff size between the two extremes. This relationship was consistent for the general work areas of community involvement and research.

The same u-shaped relationship existed after analysis involving the variable of bachelor's degree program enrolment and the general work areas of community involvement, research, and teaching.

In order to depict more clearly the relationships discussed above chi square analyses were performed on demographic and biographic data in comparison with satisfaction responses to each of the fifty-one job-specific items from the four general areas of work. These analyses elicited several significant results. In many cases the results were inconsistent showing no particular pattern of development. However several of the demographic and biographic variables were consistently related to satisfaction scores in the same way. Only those results which were significant at the .05 level or lower have been reported.

While the demographic and biographic variables did not relate significantly to all or even a majority of the fifty-one job-specific items a review of the results of these analyses resulted in the emergence of several patterns of relationships. In the case of the relationship of sex and level of satisfaction the preliminary results were supported as males were found to be more satisfied than females for four of the job-specific items. (Table 25) Of particular note

TABLE 25
 MEDIAN SATISFACTION SCORES ACCORDING TO SEX FOR SELECTED*
 JOB-SPECIFIC ITEMS

JOB ASPECT	SEX	
	FEMALE	MALE
a) opportunity for advancement in academic rank through coaching	4.18	4.49
b) extent of your teaching assignment in activity courses	4.92	5.07
c) extent of your teaching assignment in lecture courses	4.70	5.02
d) opportunity for advancement in academic rank through teaching	3.93	4.55

*These items have been reported because significant differences were indicated by chi square analysis.

are the results of analysis involving the job-specific items which referred to advancement in academic rank. Males were significantly more satisfied than were females with rank advancement opportunities in coaching and teaching. Similarly, although not significant at the .05 level or lower, the median satisfaction score for males was higher than that for females with rank advancement opportunities in committee work, both in work related and in professional organizations. The median satisfaction scores in the latter two cases were 3.45 versus 3.91 and 2.48 versus 2.74 respectively.

In reviewing analyses of age and satisfaction level, an increase in satisfaction was positively related to an increase in age for six job-specific items. However, reference to the median scores over the six items in the age categories of 51 - 55 years and over 56 years (Table 26) elicited the fact that for all six job-specific items median satisfaction scores were lower in the age category 56 and over than the median scores in the 51 - 55 category.

The total number of years as a staff member in a university position was significantly related to satisfaction levels for seven job-specific items. (Table 27) Of particular note is the fact that two relationship patterns emerged. For job-specific items 'quality of undergraduate receiving degree,' 'extent of theory in undergraduate program,' 'time for work related committees' and 'rank advancement opportunities through professional organization involvement' median satisfaction scores were higher for those with one year experience or eleven or more years experience than they were for the respondents in the experience categories between the two extremes. Graph lines of these median scores would illustrate a u-shaped relationship.

TABLE 26

MEDIAN SATISFACTION SCORES ACCORDING TO AGE FOR SELECTED*
JOB-SPECIFIC ITEMS

JOB ASPECT	AGE					
	Up To 30	31-35	36-40	41-45	46-50	51-55 56 and over
a) quality of available athletes	4.13	4.00	3.50	4.93	5.00	4.25
b) quality of graduates receiving degrees	4.53	4.84	4.78	4.93	5.00	5.00
c) extent of your teaching assignment in the undergraduate program	4.80	4.94	4.89	5.09	4.88	5.00
d) extent of your teaching assignment in lecture courses	4.73	5.00	4.97	5.07	4.75	5.00
e) amount of time available for research	3.17	3.16	3.13	3.42	3.10	4.00
f) extent of your share in decisions affecting national professional organization affairs	3.55	4.10	3.93	4.17	4.88	4.50

*These items have been reported because significant differences were indicated by chi square analysis.

TABLE 27

MEDIAN SATISFACTION SCORES ACCORDING TO TOTAL YEARS OF EXPERIENCE
FOR SELECTED*JOB-SPECIFIC ITEMS

JOB ASPECT	TOTAL YEARS OF EXPERIENCE					
	1 yr	2-4 yrs	5-7 yrs	8-10 yrs	More Than 11 yrs	
a) freedom of control over team operation	5.00	5.34	5.58	5.67	5.82	
b) quality of undergraduates receiving degrees	4.87	4.41	4.17	4.64	4.72	
c) extent of "theory" content in undergraduate program	4.92	4.52	4.59	4.77	4.98	
d) opportunity for recognition from colleagues through teaching	4.21	4.20	4.36	4.75	4.70	
e) opportunity for personal growth through teaching	4.64	4.89	4.97	5.22	5.19	
f) amount of time available to become involved with work related committees	3.80	3.73	3.40	4.00	4.46	
g) opportunity for advancement in academic rank through involvement in local, provincial or national professional organization committees	4.70	3.47	3.53	3.81	4.05	

*These items have been reported because significant differences were indicated by chi square analysis.

A linear relationship existed between satisfaction levels and total years experience for the other three job-specific items. Satisfaction increased as years of experience increased for 'freedom of control over team operations,' 'opportunity for recognition from colleagues through teaching' and 'opportunity for personal growth through teaching.'

Academic rank was significantly related to satisfaction scores for ten job-specific items. (Table 28) In the majority of cases a positive linear relationship existed with lecturers and instructors having the lowest median satisfaction scores and professors having the highest median satisfaction scores. The demographic variables of 'number of full-time staff' and 'bachelor program enrolment' were considered to be indicative of the size of physical education institutions, and as such two patterns of relationship emerged between them and satisfaction scores:

- a) a u-shaped relationship, and
- b) an inverted-u-shaped relationship (Tables 29 and 30)

Firstly, median satisfaction scores for institutions with small and large numbers of staff were higher than they were for institutions with staff numbering between the two extremes for four of ten job-specific items: 'quality of fellow team coaches,' 'quality of available athletes,' 'opportunity for recognition from colleagues through coaching,' and 'encouragement by staff to do research.' The inverted-u relationship existed for four job-specific items: 'extent of skills content in the undergraduate program,' 'adequacy of facilities for classes,' 'quality of undergraduates receiving degrees,' and 'quality of facilities for research.'

TABLE 28

MEDIAN SATISFACTION SCORES ACCORDING TO ACADEMIC RANK
FOR SELECTED*JOB-SPECIFIC ITEMS

JOB ASPECT	ACADEMIC RANK			
	Instructor	Lecturer	Assistant Professor	Associate Professor
a) effectiveness of eligibility regulations	4.90	4.92	4.80	5.54
b) pressure to win from superiors	4.90	5.06	5.56	5.72
c) opportunity for advancement in academic rank	3.08	3.23	3.43	3.60
d) quality of graduates receiving degrees	4.50	4.42	4.77	4.89
e) extent of "theory" content in undergraduate program	4.62	4.39	4.64	4.99
f) extent of your teaching assignment in lecture courses	4.88	4.50	4.95	5.19
g) freedom to select course content and teaching methods	5.50	5.60	5.71	5.82
h) opportunity for advancement in academic rank through teaching	4.25	3.97	4.24	4.98

5.14

TABLE 28
(CONTINUED)

JOB ASPECT	ACADEMIC RANK			
	Instructor	Lecturer	Assistant Professor	Associate Professor
i) opportunity for personal growth through teaching	4.83	4.93	4.90	5.25
j) extent of your share in decisions affecting department affairs	4.00	4.05	4.31	4.83
				5.00

*These items have been reported because significant differences were indicated by chi square analysis.

TABLE 29

MEDIAN SATISFACTION SCORES ACCORDING TO NUMBER OF STAFF
FOR SELECTED* JOB-SPECIFIC ITEMS

JOB ASPECT	NUMBER OF STAFF				
	1-10	11-15	16-20	21-25	26 and over
a) quality of fellow team coaches	5.25	5.06	5.24	4.66	5.27
b) amount of funds available for team activities	3.75	4.57	3.41	4.14	3.47
c) quality of available athletes	4.00	3.93	4.38	3.09	4.50
d) opportunity for recognition from colleagues through coaching	3.30	4.45	4.59	3.22	4.22
e) quality of undergraduates receiving degrees	4.55	4.58	4.63	4.37	4.36
f) extent of "skills" content in undergraduate program	4.50	4.65	4.66	4.58	4.17
g) adequacy of facilities for classes	3.70	4.89	4.90	4.59	4.28
h) opportunity for recognition from colleagues through teaching	4.66	4.62	4.14	4.74	4.29
i) amount of funds available for research	3.27	3.54	3.28	3.60	3.26

TABLE 29
(CONTINUED)

JOB ASPECT	NUMBER OF STAFF				
	1-10	11-15	16-20	21-25	26 and over
j) quality of facilities and equipment available for research	3.50	3.50	3.38	4.90	3.90
k) amount of encouragement by academic members of staff for you to do research	3.87	3.38	3.31	4.66	4.23
l) extent of participation with you in research by colleagues in your field and on your staff	4.16	3.43	3.81	4.58	3.72

*These items have been reported because significant differences were indicated by chi square analysis.

TABLE 30

MEDIAN SATISFACTION SCORES ACCORDING TO BACHELOR PROGRAM
ENROLMENT FOR SELECTED*JOB-SPECIFIC ITEMS

JOB ASPECT	BACHELOR PROGRAM ENROLMENT				
	**1-150	**151-300	301-450	451-600	600 and over
a) amount of funds available for team activities	3.75	4.50	3.18	5.13	3.47
b) level of league competition available	5.00	4.75	4.13	5.00	5.07
c) quality of graduates receiving degrees	5.50	4.90	4.83	4.23	4.85
d) extent of "skills" content in undergraduate program	3.75	4.70	4.87	4.58	4.39
e) opportunity for advancement in academic rank through teaching	5.00	4.66	4.58	3.23	4.57
f) opportunity for recognition from colleagues through teaching	4.86	4.55	4.07	3.23	4.67
g) opportunity for personal growth through teaching	5.14	5.07	4.83	4.10	5.07
h) amount of funds available for research	3.36	3.43	3.13	3.64	3.29

TABLE 30
(CONTINUED)

JOB ASPECT	BACHELOR PROGRAM ENROLMENT				
	1-150	151-300	301-450	451-600	600 and over
i) quality of facilities and equipment available for research	3.36	3.66	3.39	4.66	4.13
j) amount of encouragement by academic members of staff for you to do research	4.63	3.68	3.11	3.15	4.26
k) extent of your share in decisions affecting provincial professional organization affairs	3.25	3.95	3.93	3.89	4.47

*These items have been reported because significant differences were indicated by chi square analysis.

**Chi square analysis between these two enrolment categories indicated no significant difference on any of the items. The two categories, 1-150 and 151-300, are therefore considered as one.

Table 30 presents the median satisfaction scores for the various categories of enrolment in the bachelor's degree program over eleven job-specific aspects. As in the case of the previous discussion concerning the size of the staff the majority of these analyses produced a u-shaped relationship with the higher median satisfaction scores being found at the two extremes of the enrolment continuum.

On the basis of chi square analysis Hypothesis Six was rejected for the demographic and biographic variables of size of the institution, years of employment, age, sex and academic rank of the respondent. It must be emphasized that the rejection of Hypothesis Six was only partial as significant differences existed in a restricted number of cases. There was no evidence to support the rejection of Hypothesis Six for tenure and number of years the chief administrator had been in his present position.

Hypothesis Seven was tested in a parallel manner to that used to test Hypothesis Six. The analysis entailed only an investigation of how demographic and biographic variables related to the preferred-perceived discrepancy level. On the basis of extremely low response frequencies in the scale categories of 'More Than What I Prefer' and 'Much More Than What I Prefer' these categories were collapsed into one category which was labeled as 'More Than What I Prefer.' Chi square analysis between each demographic and biographic variable and each of the fifty-one job-specific items was performed. Two-way frequency tables were produced from which median discrepancy scores for each category of the demographic and biographic variables were calculated.

The demographic and biographic variables for which significant

differences in satisfaction levels resulted were also related to significant differences in preferred-perceived discrepancy levels for several job-specific items at the .05 level or better. Tenure and number of years the chief administrator has been in his present position were not significantly related to any of the job-specific items.

Table 31 presents the median discrepancy scores for males and females over three job-specific items. While only one of the items proved to indicate females saw a significantly greater discrepancy in what they preferred and what existed than did males, the median discrepancy scores for the other two job-specific items illustrated the same relationship between male and female respondents.

Two job-specific aspects illustrated a significant relationship between age and preferred-perceived discrepancy. In both cases, 'effectiveness of eligibility regulations' and 'adequacy of facilities,' those individuals fifty-six years and over perceived the least discrepancy between what they preferred and what they perceived as existing. (Table 32)

The chi square analysis for academic rank and preferred-perceived discrepancy resulted in significant differences for six of the fifty-one job-specific items. (Table 33) The only consistency in the pattern of median discrepancy scores was the fact that the professors were close to the 'no difference' point on the scale for all six items.

Table 34 presents results which indicate that for thirteen job-specific items significant differences in median discrepancy scores between various categories of staff size were present. However, there was no consistent pattern of differences over the thirteen items.

TABLE 31
 MEDIAN PREFERRED-PERCEIVED DISCREPANCY SCORES ACCORDING TO
 SEX FOR SELECTED JOB SPECIFIC ITEMS

JOB ASPECT	SEX	
	FEMALE	MALE
*a) opportunity for advancement in academic rank through coaching	2.08	2.41
b) extent of your teaching assignment in activity courses	3.05	3.07 NS
c) extent of your teaching assignment in lecture courses	2.84	2.94 NS
d) opportunity for advancement in academic rank through teaching	2.35	2.58 NS

*This item is reported because significant differences were indicated by chi square analysis.

NS Not significant.

TABLE 32
 MEDIAN PREFERRED-PERCEIVED DISCREPANCY SCORES ACCORDING TO
 AGE FOR SELECTED* JOB-SPECIFIC ITEMS

JOB ASPECT	AGE					
	Up To 30	31-35	36-40	41-45	46-50	51-55 56 and over
a) effectiveness of eligibility regulations	3.01	2.76	2.79	2.17	3.00	2.83 3.00
b) adequacy of facilities for classes	2.36	2.46	2.63	2.39	1.50	2.50 2.70

*These items have been reported because significant differences
 were indicated by chi square analysis.

TABLE 33

MEDIAN PREFERRED-PERCEIVED DISCREPANCY SCORES ACCORDING TO ACADEMIC RANK
FOR SELECTED* JOB-SPECIFIC ITEMS

JOB ASPECT	ACADEMIC RANK			
	Instructor	Lecturer	Assistant Professor	Associate Professor
a) extent of "theory" content in undergraduate program	3.16	2.81	2.79	2.85
b) extent of your teaching assignment in the undergraduate program	1.90	2.98	3.08	3.09
c) extent of your teaching assignment in activity courses	3.00	3.15	3.03	3.01
d) extent of your teaching assignment in lecture courses	2.16	2.71	2.94	3.05
e) opportunity for recognition from colleagues through research	4.00	3.13	2.93	2.83
f) opportunity for personal growth through research	4.00	2.85	2.95	2.90

*These items have been reported because significant differences were indicated by chi square analysis.

TABLE 34

MEDIAN PREFERRED-PERCEIVED DISCREPANCY SCORES ACCORDING TO NUMBER OF STAFF
FOR SELECTED* JOB-SPECIFIC ITEMS

JOB ASPECT	NUMBER OF STAFF				
	1-10	11-15	16-20	21-25	26 and over
a) number of hours of preparation	2.50	2.91	2.33	2.14	2.85
b) quality of physical facilities available for practice	2.17	2.63	2.23	1.31	2.10
c) effectiveness of eligibility regulations	2.90	2.77	2.90	2.81	2.68
d) amount of funds available for team activities	2.10	2.46	2.09	2.22	1.85
e) level of league competition available	3.00	2.58	2.60	2.42	2.72
f) adequacy of facilities for classes	2.14	2.70	2.63	2.40	2.31
g) freedom to select course content and teaching methods	2.50	3.03	3.03	3.00	2.97
h) relevancy of curriculum to the type of jobs available to degree holders	2.73	2.72	2.79	2.65	2.29
i) opportunity for recognition from colleagues through teaching	2.75	2.83	2.53	2.84	2.50
j) quality of facilities and equipment available for research	1.83	2.56	2.07	2.74	2.31
k) extent of participation with you in research by colleagues in your field and on your staff	2.65	2.28	2.23	2.83	2.68

TABLE 34

(CONTINUED)

JOB ASPECT	NUMBER OF STAFF				
	1-10	11-15	16-20	21-25	26 and over
1) amount of support for your research by administrative personnel on your staff	2.63	2.25	2.21	2.72	2.62
m) amount of time available to become involved with work related committees	2.83	2.21	2.10	2.84	2.34

*These items have been reported because significant differences were indicated by chi square analysis.

It appeared that the pattern of differences in median discrepancy scores was particular to each item.

The analyses of preferred-perceived discrepancy and bachelor degree program enrolment resulted in strong support of the u-shaped relationship.(Table 35) For eight out of eleven of the job-specific items for which significant differences were found the higher median discrepancy scores were attached to the smallest and largest enrolment sizes. The median discrepancy scores for respondents in the enrolment categories between the two extremes were consistently lower. These lower scores indicated a 'Less Than What I Prefer' evaluation.

On the basis of the above results support for the rejection of Hypothesis Seven was found insofar as the demographic and biographic variables bachelor's degree program enrolment, number of staff, and academic rank of the respondents were concerned. While several significant results were discovered the investigator felt there was not sufficient support for the rejection of Hypothesis Seven insofar as age, sex and total years of experience were concerned.

VII - WRITTEN COMMENTS

Very few of the 314 questionnaires returned had written comments on the last page. However, of the comments received two were most common. Firstly, a number of respondents reacted negatively to the length of the questionnaire. Secondly, several respondents indicated lack of understanding when an attempt was made to answer the last question. Some respondents suggested they did not know what their employer preferred and others suggested the word 'employer' was not easily interpreted.

TABLE 35

MEDIAN PREFERRED-PERCEIVED DISCREPANCY SCORES ACCORDING TO BACHELOR
PROGRAM ENROLMENT FOR SELECTED* JOB-SPECIFIC ITEMS

JOB ASPECT	BACHELOR PROGRAM ENROLMENT				
	** 1-150	** 151-300	301-450	451-600	600 and over
a) opportunity for advancement in academic rank through teaching	2.88	2.70	2.30	1.93	2.55
b) opportunity for recognition from colleagues through teaching	2.78	2.83	2.27	2.03	2.67
c) opportunity for personal growth through teaching	2.83	2.93	2.59	2.60	2.85
d) quality of facilities and equipment available for research	1.75	2.38	2.00	2.44	2.37
e) amount of encouragement by academic members of staff for you to do research	2.71	2.32	1.94	2.63	2.80
f) amount of time available to become involved with work related committees	2.89	2.27	2.13	2.29	2.59
g) amount of time available to become involved with committees of local, provincial, or national professional organizations	2.85	2.21	2.06	2.46	2.31
h) amount of funds available to become involved with committees of provincial and national professional organizations	2.07	2.05	1.95	2.11	2.07

TABLE 35
(CONTINUED)

JOB ASPECT	BACHELOR PROGRAM ENROLMENT				
	1-150	151-300	301-450	451-600	600 and over
i) extent of your share in decisions affecting local professional organization affairs	2.50	2.75	2.77	2.83	2.82
j) extent of your share in decisions affecting national professional organization affairs	2.50	2.76	2.57	2.38	2.83
k) opportunity for recognition from colleagues through involvement in local, provincial or national professional organization committees	2.85	2.74	2.63	2.55	2.92

*These items have been reported because significant differences were indicated by chi square analysis.

**Chi square analysis between these two enrolment categories indicated no significant differences on any of the items. The two categories, 1-150 and 151-300 are therefore considered as one.

TABLE 36

MEDIAN PREFERRED-PERCEIVED DISCREPANCY SCORES ACCORDING TO TOTAL YEARS
OF EXPERIENCE FOR SELECTED* JOB-SPECIFIC ITEMS

JOB ASPECT	TOTAL YEARS OF EXPERIENCE				
	1 yr	2-4 yrs	5-7 yrs	8-10 yrs	More Than 11 yrs
a) extent of your teaching assignment in the undergraduate program	2.88	3.13	3.04	3.03	2.99
b) opportunity for advancement in academic rank through involvement in work related committees	2.63	2.33	2.61	2.31	2.77
c) opportunity for recognition from colleagues through involvement in local, provincial or national professional organization committees	3.00	2.77	2.77	2.74	2.84

*These items have been reported because significant differences were indicated by chi square analysis.

CHAPTER V

DISCUSSION OF RESULTS

I - INSTRUMENT

Comments provided by respondents, as reported in the Chapter Four, appear to indicate that the Work Environment Questionnaire may have been too lengthy and that this combined with a reported vagueness of the last question resulted in the greater percentage of responses on the employer-employee discrepancy scale to be in the 'no difference' category. While this may have made the data from the question concerning employer-employee discrepancy somewhat questionable it was felt that there were few, if any, adverse affects on the data provided up to the point of the last question.

If an adjustment in this question was to be made the words 'school,' 'department,' and 'faculty' should have been replaced by more specific and identifiable object words such as 'dean,' 'director,' or 'chairman.' These words would have provided a more concrete point of reference for evaluations to be made by respondents.

Experience with a six-point satisfaction scale in the study may not have been adequate for use in the university setting. The three categories on the satisfaction side of the scale may not have provided the appropriate opportunity to detect differences in levels of satisfaction. As a result an eight or ten point scale might have been more useful. This, in combination with a more expansive (seven or nine point) discrepancy scale may have resulted in higher correlation coefficients between satisfaction and discrepancy.

In total, however, the instrument was considered to be useful

and was considered to be one that provided accurate information. This contention was supported by the consistency with which differing numbers of respondents replied to various items. For example one item referred to 'the extent of your teaching assignment in the graduate program' in asking for an indication of satisfaction. Whereas the majority of items within the general area of teaching received from 290 - 305 responses this particular item received approximately 150 responses. This indicated that the questionnaire was read carefully and directions were followed well by the respondents.

II - THE DISCREPANCY MODEL AND SATISFACTION

The results of initial correlational analysis over the fifty-one job-specific items indicated forty-nine significant correlations between level of satisfaction and preferred-perceived discrepancy. (Hypothesis One) The mean Kendall rank order correlation coefficient over the items was 0.4275. Locke (1969: 324) referred to a study which used a discrepancy scale similar to the one used in the present study -- that is, a scale which requested a direct report of the discrepancy in what exists and what is preferred. The mean correlation coefficient for that study was minus .61. The minus correlations might be attributed to the numerical weighting of the scale points. Furthermore, it was not reported whether the correlations were Spearman rank order correlations, Kendall rank order correlations, or Pearson product moment correlations. If the correlation procedure used for the study referred to by Locke and the correlation procedures used in the present study were the same and comparable then the mean correlation coefficient for the present study was lower than that reported by Locke.

Assuming the correlations were comparable an explanation of the difference in mean correlations should be postulated. Two main comparisons may yield some clarification.

Firstly, the present study was concerned with a considerably larger number of respondents than was the study reported by Locke. (1969: 324) This in itself may have precipitated a greater degree of variance on the relationship between the preferred-perceived discrepancy and satisfaction. Similarly, only eight elements or job aspects were used to elicit responses in Locke's reported study whereas the present study used fifty-one such items. No report on the exact nature of the eight items was presented by Locke therefore a comparative analysis is not possible.

Furthermore, Locke's illustrative study was dependent on the recall ability of students in that they were asked to respond to questions dealing with their last summer job while the respondents from the present study were reacting to their present work situation. This lapse in time may have allowed the students the opportunity to exaggerate their positive and negative feelings about their last work experience. This type of bias has often been suggested to be one methodological inadequacy of the critical incident procedure often used to test the Herzberg two-factor theory of job satisfaction.

The correlation coefficients resulting from the present study were relatively low in absolute value in terms of accounting for variance in feelings of satisfaction even though the majority of correlations were high. For example, Ferguson has suggested that a correlation coefficient of .7071 is necessary before fifty percent "of the variance of the one variable is predictable from the variance

of the other. With a correlation as high as .90 the unexplained variance is 19 per cent." (1959: 128) Of the response sets to the fifty-one questionnaire items used for the present study many were not useful in accounting for variance in satisfaction scores. Many were valuable in this sense, however, as many correlations were beyond the .6000 level. As such these correlations gave strong support for the use of the discrepancy concept at least as a basis for future study.

The investigations involving correlations between satisfaction levels and employer-employee discrepancies proved to be less useful in accounting for variance in the two correlates as the mean Kendall correlation was considerably lower. While Hypothesis Two, which concerned itself with the employer-employee discrepancy measure, was rejected on the basis of significant correlations the absolute value of the correlations accounts for very little of the variance in the two variables satisfaction and discrepancy.

As previously mentioned several respondents criticized the question which elicited responses to employer-employee discrepancy scale items as being somewhat vague. Possibly for this reason a greater percentage of 'no difference' responses were recorded on the employer-employee discrepancy scale. For the areas of coaching, community involvement and teaching at least seventy percent of the responses were in the middle 'no difference' category. Further evidence which led to questioning the usefulness of the employer-employee discrepancy data was the fact that for correlations between this discrepancy measure and measures of satisfaction the number of respondents was consistently less than the number of respondents used to calculate correlations between the same satisfaction measures and preferred-

perceived discrepancy measures. This meant a number of respondents chose not to answer some items on the employer-employee discrepancy scale that they had answered on the preferred-perceived discrepancy scale.

In order to filter out some of the effects that might possibly be generated by individual differences intra-individual or within individual correlational analyses were performed between satisfaction and discrepancy. In part this procedure was completed to eliminate the possible variance of scale interpretation from individual to individual.

The results of this investigation proved to be in the expected direction as mean correlations between satisfaction and preferred-perceived discrepancy, and between satisfaction and employer-employee discrepancy were higher than they were for the inter-individual or between individual correlations.

It was stated in Chapter Four that both Kendall and Spearman rank order correlations were calculated for the intra-individual analysis. The Spearman correlation procedure was selected because it was more appropriate for a small number of ties. The Kendall correlation procedure was used so that mean correlations from the intra-individual analysis could be compared with the mean correlations from the inter-individual analysis.

The third method of analyzing the effects of perceived discrepancy on satisfaction originated from the results of correlational analysis of respondents' perceptions of importance ratings for the four general areas of work -- coaching, community involvement, research, and teaching. These correlations indicated that, as perceived by respondents, administrators and staff members agreed on the importance of the aforementioned general areas of work. However, the absolute

value of the correlation coefficients was not extremely high and therefore did not account for a large percentage of the variance in importance ratings. As a result of this, a three category scale was developed which depicted the difference in importance ratings as more, less, or equal to the importance attached to the general areas of work by the staff member. The results of this investigation indicated that perceived discrepancy in importance rating was related to satisfaction level. In this study, it could be questioned whether or not the geographical location of questions within the instrument may have had an effect on the discrepancy response elicited. The two questions involved in calculating the importance discrepancy variable were both placed together on one page. It is possible that the answers to one question may have been affected by the responses to the other. This would seem to be a problem which may have been avoided only by using the interview technique. However, the results did indicate significant relationships and additional research related to this should be considered.

III - OVER-ALL MEASURES OF SATISFACTION

Correlations for forty-nine out of fifty-one items supported the rejection of the hypothesis that the global measure of job satisfaction was not related to measures of satisfaction on specific job items (Hypothesis Three).

A review of these correlations suggests that several items relate more strongly with the global measure than others. Within each of the general areas of coaching, teaching, research and community involvement the satisfaction scores on items referring to opportunity

for recognition and personal growth tended to correlate more highly with the global satisfaction measure than did many other items.

A number of items in each general area of work seemed to be more useful than others in that the correlation coefficients between satisfaction with the item and satisfaction with the job as a whole were able to account for more variance. Satisfaction scores for 'freedom of control over team operations' in the general area of coaching correlated most highly with satisfaction with the job as a whole. ($\tau = .3789$) Similarly, opportunity for personal growth and opportunity for recognition from colleagues resulted in relatively high correlation coefficients of .2968 and .3648 respectively.

In the area of teaching items dealing with undergraduate program content and the composition of the staff member's teaching assignment in the undergraduate program elicited responses which correlated, relatively highly, with satisfaction with the job as a whole -- coefficients of .2668, .2500, .2940, and .2683 resulted.

Satisfaction scores for funds available for research and the relevancy of one's research to societal needs correlated .2482 and .3572 respectively with satisfaction scores for the job as a whole. Also correlating to a relatively high degree with the scores for the global measure of satisfaction were the scores for the item concerning the participation by colleagues in research with the respondent. ($\tau = .2440$)

Very few of the items in the general area of community involvement produced correlations between item satisfaction and satisfaction with the job as a whole beyond the .2000 level. The ones that did, however, were items that were concerned with the sharing of decisions

within the respondents own department and the sharing of decisions within local professional organizations. Both items dealt with aspects that seemed to have a more direct effect on the respondent's work world than did aspects of a provincial or national nature.

The reported levels of satisfaction with the four general areas of work correlated with satisfaction levels for the job-specific items within each area in a similar manner as the satisfaction scores with the job as a whole correlated with satisfaction scores for job-specific items. This supported the rejection of Hypothesis Four. Within the areas of coaching, teaching and research the same job-specific items rendered the highest correlation coefficients between general satisfaction scores and specific item satisfaction scores but did so generally to a greater extent. Freedom of control over team operations, undergraduate program content, teaching assignment in the undergraduate program, funds available for research, participation by colleagues in research, and relevancy of research were items for which satisfaction scores correlated most highly with satisfaction scores for respective general areas of work.

In terms of future research the results related to Hypothesis Three and Four strongly suggest that fewer job-specific items, based on the content and nature of those reported as indicative of relatively high correlations, might be used if similar research were to be conducted.

Hypothesis Five, which postulated no relationship between reported satisfaction levels for the four general areas of work and satisfaction levels for the job as a whole was rejected on the basis of significant correlations. Satisfaction levels for the general area

of teaching correlated with satisfaction levels for the job as a whole to the greatest extent (.3900). This suggests that a greater amount of the variance in satisfaction with the job as a whole is accountable in terms of satisfaction with teaching.

IV - DEMOGRAPHIC AND BIOGRAPHIC VARIABLES AND SATISFACTION

Contrary to the prediction of Hypothesis Six a number of significant relationships were found to exist between satisfaction and demographic and biographic variables. Of particular note was the fact that five of the demographic and biographic variables were significantly related to satisfaction levels for the general work area of research. Satisfaction with the general area of research increased as academic rank and total years of experience in university as an academic staff member increased. Similarly, satisfaction with the job as a whole increased as total years experience, age, and academic rank increased. The results of these analyses were congruent with the discussions of task experience and attitude offered by Breer and Locke (1965) which suggested the individual adapts to the system of rewards and punishment as the duration of his stay in an organization increases. The adaptation process may have taken two directions. In one case individuals may have recognized organizational directives or pressures to perform in a prescribed manner. These individuals would then have been granted rewards and conditioned to repeating the process. In the second case individuals may have learned to adapt by performing minimally and at the same time minimizing punishments. In either case the result may have been a perception on the part of the individual that the situation was not different from that which he desires.

Satisfaction scores for the general area of research also varied significantly according to the enrolment in the bachelors degree program and did so in the form of a u-shaped relationship -- the higher satisfaction scores were elicited from respondents who were members of institutions in the two smallest and the largest category of bachelor program enrolment. Assuming bachelor program enrolment was an indication of the size of an institution the relationship was logical from an intuitive point of view. In smaller institutions the programs offered would be limited and narrow in focus.

For example smaller institutions would not offer graduate degrees and thus the concern for research facilities and funds for research would not have been prominent. The largest institutions while offering more diverse programs were likely to have been "blessed" with a more specialized staff and were likely in possession of facilities, equipment and funds necessary for the operation of the research aspects of graduate programs. This seemed to be the case as reference to Table 27 (Chapter Four) indicates the larger institutions were more satisfied with funds, facilities, and equipment for research.

On the other hand the institutions that have bachelor program enrolments between the two extremes may have been in the process of growth and expansion. The pressure to expand and the possible lack of funds, equipment and facilities for adequate expansion may have been responsible for the lower satisfaction levels for the general area of research.

Satisfaction with the job as a whole was positively and significantly related to total years experience, age and academic rank. The commonality of these relationships might have been predicted as the

three demographic variables relate positively to one another to a great extent. The relationship between satisfaction and the three variables may have been accounted for in terms of Breer and Locke's (1965) task experience explanation of attitude development.

The demographic and biographic variables were cross-tabulated with satisfaction scores for each of the fifty-one job specific items encompassed by the four general areas of work. These analyses precipitated similar results to those that resulted from the analyses involving satisfaction scores for the four general areas of work. Satisfaction increased as age increase up to the age of fifty-five years. Median satisfaction scores beyond this age category were lower. This was consistent with Salek and Otis' (1964: 429) suggestion that satisfaction decrease in the terminal period of employment. It would take a greater number of individuals in the upper age groups to provide stronger support for this contention. Of the 314 respondents in this study only nine were in the age category above fifty-five years. Similarly, total years of experience and academic rank correlated positively and significantly with seven and ten job-specific items respectively.

For a number of job-specific items the median satisfaction scores for males were significantly higher than median satisfaction scores for females. This trend was apparent, though not significant, in the case of a number of other job-specific items. These results seemed to be quite logical in view of the fact that satisfaction increased with an increase in age and academic rank, and that the number of females in the lower categories of age and academic rank were greater than in the upper categories of age and academic rank.

The strongest indication of the development of a pattern of relationship resulted from consistent results for analyses involving bachelors degree programs and satisfaction levels. As was found with the general aspects of work a u-shaped relationship was most prominent. In view of the consistency of this relationship it would seem appropriate to suggest that a more detailed investigation of the size factor and its relationship to satisfaction is warranted.

The final analyses of the study compared biographic and demographic variables with employer-employee discrepancy levels for the fifty-one job-specific items. A considerably smaller number of significant relationships resulted. This may have been predicted in view of the fact that correlations between satisfaction and employer-employee discrepancy did not account for a great percentage of variance in satisfaction.

V - IMPLICATIONS OF RESULTS

Of the results discussed, those concerning satisfaction and how it related to preferred-perceived discrepancy and bachelor degree program enrolment as an indication of size seem to be most important in terms of future administration of personnel within the university physical education organization.

Firstly, strong and consistent support was found which indicated that satisfaction decreased as the discrepancy between one's preference and one's perception of what existed increased. This would seem to indicate that a serious responsibility rests with the organization or the administrative personnel of the organization to ensure two policies are operationalized in view of the fact that

expectations provide foundations for evaluations. Initially, it implies the necessity of adopting a policy which would require the organization to educate prospective employees, through a thorough interview procedure, about such things as the nature, philosophy and objectives of the organization. Furthermore, it would require the organization to become familiar with the objectives and expectations of the prospective employee in order that the organization may provide the prospective employee with an honest and accurate estimation of the chance he would have of fulfilling his expectations as a staff member.

The results of this study have indicated that satisfaction is lower among younger staff members than it is among older staff members, and that satisfaction is lower among those with academic ranks of instructor or lecturer than it is among those with the rank of associate professor or professor. It may be reasonable to suggest that these two situations have resulted because of the failure of the organization to explain its position clearly and at the same time become aware of the prospective employee's position.

The results concerning satisfaction and discrepancy imply a further responsibility for the organization to develop effective communication channels in order that staff members may be kept informed of changing situations or circumstances in the work environment and in order that the organization may be made aware of changing dispositions among staff members. The basic understandings underlying concepts such as participative management and management by objectives would be useful in completing this task as one result of their implementation would be an increased awareness on the part of the staff member of the realities of the organizational

situation. This increased awareness would allow the staff member to assess his expectations as realistic or unrealistic. The subsequent re-establishment of his expectations would reduce the discrepancy between preference and perception of what exists.

Enrolment in bachelor degree programs was assumed to be one measure of organization size. In terms of satisfaction it was found that the smaller and larger organizations were related to higher levels of satisfaction. It was suggested earlier that the smaller organizations might be characterized as having a narrow focus in terms of objectives. In the case of the larger organizations it was suggested that their focus would be more expansive but that they would have the resources necessary to accommodate such a focus. It has subsequently been surmized that the organizations of an intermediate size may be in a period of growth and expansion which cannot be accomodate by available human resources. This seems to be supported by the results of this study which have indicated respondents from the mid-sized organizations tended to evaluate the status of such things as funds for research and coaching, facilities for research, and time for research as "much less than I prefer" moreso than did the respondents from the small and large organizations. The 'lack of time' suggests the staff members have excessive workloads which may be the result of an organization trying to do more than is possible with existing resources. By being selective in choosing tasks and patient in achieving expansion goals the organization may alleviate the lower level of satisfaction which characterizes the mid-size university physical education organization.

CHAPTER VI

SUMMARY AND CONCLUSIONS

I - SUMMARY

Basis for the Study

The study evolved from an interest in the conflict which has often developed between the individual and the organization and a concern for the university and its constituent parts as organizations subject to such conflict. It appears that the nature of the university might enhance conflict between the individual and the organization because of a lack of clarity or congruence of goals between the two. Oncken (1971), Ikenberry (1972), Bonneau and Corry (1972) and Parsons (1971) have expressed agreement with this assessment.

The concept of job satisfaction, in an indirect sense, has been used as a point of reference for the investigation of the relationship between the individual and the organization. In general researchers that have been concerned with the concept of job satisfaction have agreed that the idea of an 'affective response to one's situation and environment' is basic to the concept. Early studies of job satisfaction based on this belief dealt primarily with self-reported levels of satisfaction in relation to elements of the situation such as pay, hours of work, leader behavior. In essence these types of studies tended to ignore the possible intervening effects of individual differences upon satisfaction-environment relations. In reaction to this simplistic trend in research investigators such as Vroom (1964), Katzell (1964), and Locke (1969) began to discuss the concept of

'discrepancy' and its possible relationship to job satisfaction.

Basically, their contention was that satisfaction or dissatisfaction with something was dependent primarily on the discrepancy one perceived between what one preferred and what one saw as existing -- the greater the discrepancy the greater the dissatisfaction.

In support of this position Locke (1969) described several studies which tended to support this position and described results which demonstrated a difference in mean satisfaction scores for inter-individual and intra-individual correlations between satisfaction and discrepancy. The intra-individual correlations tended to be higher than inter-individual correlations and as such yielded support to the contention that individual differences are important in terms of job satisfaction.

The review of the literature pointed to the need to study general indications of satisfaction and their relationship to specific measures of satisfaction. Furthermore it was assumed the study of demographic and biographic variables in relation to satisfaction for academic personnel in the university organization would be a valuable undertaking.

Seven hypotheses were stated in the null form which gave direction to the testing of: a) the relationship between satisfaction levels and discrepancy level; b) the relationship between global and specific measures of satisfaction; c) the relationship between satisfaction levels and selected biographic and demographic variables.

Methodology

Two questionnaires were structured in order to allow the testing of stated hypotheses. One surveyed chief administrators of physical

education professional preparation programs in Canadian universities. Demographic information concerning the institution and biographic information concerning the chief administrator was obtained from this questionnaire. The second instrument, directed to full-time academic staff members requested a variety of information: a) biographic information; b) global indications of importance of, and satisfaction with, four general areas of work -- coaching, community involvement, research, teaching; c) two discrepancy measures (preferred-perceived and employer-employee) and a measure of satisfaction with fifty-one job-specific items concerning the individuals' work environment.

Questionnaires were distributed by mail and with the assistance of chief administrators. A pre-addressed and stamped envelope was sent with each questionnaire.

The data was analyzed by computer after being coded on IBM cards. The SPSS SUBPROGRAMS CODEBOOK, NONPAR CORR AND FASTABS provided frequency distributions, Kendall and Spearman rank order correlations, and chi square statistics respectively for data analysis.

Results

On the basis of the results from the use of nonparametric statistics models several of the stated hypotheses were rejected.

Satisfaction levels for job-specific items were found to be significantly related to a) preferred-perceived discrepancy levels and b) employer-employee discrepancy levels. The absolute values of the correlation coefficients for the latter were consistently lower than for the former. Also in terms of the absolute values of correlation coefficients mean inter-individual correlations proved to be lower

than mean intra-individual correlations for the analysis of preferred-perceived discrepancy levels and satisfaction levels.

Significant and positive correlations resulted from analyses which compared, on a rank order basis: a) satisfaction with the job as a whole and satisfaction with the four general areas of work; b) satisfaction with the job as a whole and satisfaction with fifty-one job-specific aspects; and c) global satisfaction with a work area and satisfaction with job-specific items within the general area.

In cases where correlational analysis was used coefficients were generally low in absolute value and therefore were not able to account for a large amount of the variation in variable values.

The analysis of demographic and biographic variables in relation to satisfaction suggested several general trends. Satisfaction levels for females were lower than for males. As age and total years of experience increased so also did satisfaction. The size of the institution in terms of bachelor degree program enrolment consistently provided a u-shaped relationship with satisfaction -- satisfaction was found to be higher in institutions which had either large or small enrolment in the bachelor degree program.

II - CONCLUSIONS

The correlations between global and specific measures of satisfaction resulted consistently in significant relationships. While the absolute value of the correlations was not extremely high they were interpreted as supporting the contention that the Work Environment Questionnaire was a valid measurement instrument.

The results of the study provided moderate but consistent support for the rejection of a number of null hypotheses which dealt with satisfaction, perceived-preferred discrepancy, employer-employee discrepancy, and demographic and biographic data. On the basis of these results several conclusions, applicable to physical educators and physical education organizations in Canadian universities seem justifiable.

1. Job satisfaction increases as the discrepancy between one's preference and one's perception of what exists in the work environment decreases.
2. Job satisfaction increases as the discrepancy between one's preference and one's perception of what his employer prefers decreases.
3. Job satisfaction varies according to the size of the physical education organization - - job satisfaction is greater among staff members from small and large physical education organizations than it is for staff members from physical education organizations between the two extremes in size. In terms of actual values the term 'small' refers to institutions with bachelors degree program enrolments of up to 300 students. The term 'large' refers to institutions with bachelors degree program enrolments of 601 or more.
4. There is a higher degree of congruency between what is preferred and what is perceived as existing in the work environment among staff members from small and large physical education organizations than there is among staff members from physical education organizations of a size between the two extremes.
5. There is congruency between administrative personnel and staff members concerning the importance of four areas of staff

member's work -- coaching, community involvement, research, and teaching.

6. Job satisfaction is higher for staff members with the academic rank of associate professor and professor than it is for staff members with the academic rank of instructor, lecturer, or assistant professor.

7. For staff members with the academic rank of professor there is a higher degree of congruency between what is preferred and what is perceived as existing in the work environment than there is for staff members holding other academic ranks.

8. Job satisfaction increases as age increases up to the age of fifty-five. There seemed to be an indication that satisfaction began to drop after the age of fifty-five. However, a larger sample than the one available for this study would be needed to confirm this possibility.

9. Job satisfaction increases as total years of experience in the university setting increases.

10. Job satisfaction is greater among male academic staff members in university physical education organizations than it is for female academic staff members. This is to be expected as the majority of females fall within the lower categories of age and academic rank -- satisfaction was found to increase as age and academic rank increased.

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APPENDIX A

ORIGINAL LETTER TO CHIEF ADMINISTRATORS
AND
DEFINITION OF FULL-TIME ACADEMIC STAFF MEMBER

As a project directed at the completion of graduate research we are investigating job attitudes among full-time academic physical education staff members in Canadian universities.

We respectfully solicit your cooperation and assistance in the completion of this project in the following two ways:

- 1) distribution of the questionnaires and envelopes to all FULL-TIME ACADEMIC STAFF MEMBERS in your faculty. A full-time academic staff member is defined on the attached sheet.
- 2) completion and return of the CHIEF ADMINISTRATOR'S questionnaire which will come to you under separate cover.

We do not ask that you collect the questionnaires after distribution. We have provided pre-addressed and stamped envelopes for your staff.

A copy of the major questionnaire has been enclosed for your records.

We greatly appreciate your cooperation in this project and we anticipate the results of same will provide information which you will find useful in your position as Dean.

Thank you.

Sincerely yours

T. L. Maloney
Project Coordinator

M. L. Van Vliet, Dean
Faculty of Physical Education

FULL-TIME ACADEMIC STAFF MEMBER:

a staff member who has tenure or has a position
leading to tenure with no contractual indication
of an employment termination date.

Important:

The above classification does not include a number
of exceptions as listed below:

1. Deans, Directors,, Department Chairmen
2. Sessional Instructors
3. Full-Time Academic Staff Members who were not
on staff before August 1, 1973
4. Administrative Officers -- this includes individuals
who do not carry teaching responsibilities

APPENDIX B

WORK ENVIRONMENT QUESTIONNAIRE
AND
COVERING LETTER TO RESPONDENTS

February 4, 1974

Dear Staff Member:

As a project directed at the completion of graduate research we are investigating job attitudes among full-time academic physical education staff members in Canadian universities.

The Director of your school has cooperated with us by distributing the attached questionnaire and envelope to you. We would respectfully request your cooperation in completing the questionnaire and returning it to us at your earliest convenience.

As a high percentage return is essential for the success of this type of research we have ensured TOTAL ANONYMITY by numbering questionnaires only according to university. All the questionnaires that have been sent to your university have identical numbers.

Please accept our gratitude in advance for your kind cooperation with this project.

Thank you.

Sincerely yours

T. L. Maloney
Project Coordinator

M. L. Van Vliet, Dean
Faculty of Physical Education

WORK ENVIRONMENT QUESTIONNAIRE

FOR

ACADEMIC STAFF MEMBERS IN PHYSICAL EDUCATION

IN

CANADIAN UNIVERSITIES

ADMINISTERED BY

T. L. MALONEY

IN COOPERATION WITH THE DEAN
FACULTY OF PHYSICAL EDUCATION
UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA

I N S T R U C T I O N S

PLEASE READ THE FOLLOWING BEFORE COMPLETING THE QUESTIONNAIRE.

1. The questionnaire should take approximately 20 - 30 minutes to complete.
2. QUESTIONS 13 and 14 ASSESS DIFFERENT ATTITUDES. PLEASE READ THEM CAREFULLY.
3. A blank, lined sheets is attached at the end of the questionnaire. It has been added so that you may provide any additional information you feel is important.
4. PLEASE RETURN YOUR COMPLETED QUESTIONNAIRE BY FEBRUARY 28, 1974 IN THE ENCLOSED STAMPED ENVELOPE TO:

Mr. T. L. Maloney
c/o Faculty of Physical Education
University of Alberta
Edmonton, Alberta

IMPORTANT: Several terms used in the questionnaire are defined below. PLEASE ANSWER ALL QUESTIONS WITH REFERENCE TO THESE DEFINITIONS.

1. **COACHING:** activity as head coach or assistant coach of one or more intercollegiate athletic teams sponsored by the University.
2. **COMMUNITY INVOLVEMENT:** participation as a member or chairman of current committees of Faculties/Schools/Departments, universities, or professional physical education organizations at a local, provincial, or national level.
3. **RESEARCH:** empirical and library investigatory activities that are not directly related to, nor necessary for, the completion of the teaching aspect of the job.
4. **TEACHING:** activities relating directly to the operation and conduct of student programs.

NOTE: PLEASE ANSWER QUESTIONS 9 - 14 BY PLACING A CIRCLE AROUND THE APPROPRIATE NUMBER TO THE RIGHT OF EACH STATEMENT.

- 9.** What LEVEL OF IMPORTANCE do you think is attached to each of the following aspects of your work by your employing Department.

	<u>VERY</u>	<u>QUITE</u>	<u>MODERATE</u>	<u>LITTLE</u>	<u>NONE</u>
i) coaching	5	4	3	2	1
ii) community involvement	5	4	3	2	1
iii) research	5	4	3	2	1
iv) teaching	5	4	3	2	1

- 10.** What LEVEL OF IMPORTANCE do you attach to each of the following aspects of your work?

	<u>VERY</u>	<u>QUITE</u>	<u>MODERATE</u>	<u>LITTLE</u>	<u>NONE</u>
i) coaching	5	4	3	2	1
ii) community involvement	5	4	3	2	1
iii) research	5	4	3	2	1
iv) teaching	5	4	3	2	1

- 11.** In general, HOW SATISFIED are you with each of the following aspects of your work?

	<u>VERY Satisfied</u>	<u>QUITE Satisfied</u>	<u>SLIGHTLY Satisfied</u>	<u>SLIGHTLY Dissatisfied</u>	<u>QUITE Dissatisfied</u>	<u>VERY Dissatisfied</u>
i) coaching	6	5	4	3	2	1
ii) community involvement	6	5	4	3	2	1
iii) research	6	5	4	3	2	1
iv) teaching	6	5	4	3	2	1
v) job as a whole	6	5	4	3	2	1

3

12. How satisfied are you with each of the work situation aspects listed below?

COACHING ASPECTS

- Do Not Answer This Section If You Are Not Coaching This Year (1973-74):

	VERY Satisfied	QUITE Satisfied	SLIGHTLY Satisfied	SLIGHTLY Dissatisfied	QUITE Dissatisfied	VERY Dissatisfied
1. number of practice hours	4	3	4	3	2	1
2. amount of time available for practice	4	3	4	3	2	1
3. number of hours of preparation	4	3	4	3	2	1
4. quality of physical facilities available for practice	4	3	4	3	2	1
5. effectiveness of eligibility regulations	4	3	4	3	2	1
6. freedom of control over team operation	4	3	4	3	2	1
7. pressure to win from superiors	4	3	4	3	2	1
8. quality of fellow team coaches	4	3	4	3	2	1
9. amount of funds available for team activities	4	3	4	3	2	1
10. quality of available athletes	4	3	4	3	2	1
11. level of league competition available	4	3	4	3	2	1
12. opportunity for advancement in academic rank through coaching	4	3	4	3	2	1
13. opportunity for recognition from colleagues through coaching	4	3	4	3	2	1
14. opportunity for personal growth through coaching	4	3	4	3	2	1

TEACHING ASPECTS - Do not reply to items that are NOT applicable to your work assignment in 1973-74.

15. quality of undergraduates receiving degrees	4	3	4	3	2	1
16. quality of graduates receiving degrees	4	3	4	3	2	1
17. extent of "skills" content in undergraduate program	4	3	4	3	2	1
18. extent of "theory" content in undergraduate program	4	3	4	3	2	1
19. extent of your teaching assignment in the undergraduate program	4	3	4	3	2	1
20. extent of your teaching assignment in the graduate program	4	3	4	3	2	1
21. extent of your teaching assignment in activity courses	4	3	4	3	2	1
22. extent of your teaching assignment in lecture courses	4	3	4	3	2	1
23. adequacy of facilities for classes	4	3	4	3	2	1
24. freedom to select course content and teaching methods	4	3	4	3	2	1
25. relevancy of curriculum to the type of jobs available to degree holders	4	3	4	3	2	1
26. opportunity for advancement in academic rank through teaching	4	3	4	3	2	1
27. opportunity for recognition from colleagues through teaching	4	3	4	3	2	1
28. opportunity for personal growth through teaching	4	3	4	3	2	1

RESEARCH ASPECTS

- Do not reply to items that are NOT applicable to your work assignment in 1973-74

	VERY Satisfied	QUITE Satisfied	SLIGHTLY Satisfied	SLIGHTLY Dissatisfied	QUITE Dissatisfied	VERY Dissatisfied
29. amount of funds available for research	6	5	4	3	2	1
30. amount of time available for research	6	5	4	3	2	1
31. quality of facilities and equipment available for research	6	5	4	3	2	1
32. amount of encouragement by academic members of staff for you to do research	6	5	4	3	2	1
33. extent of participation with you in research by colleagues in your field and on your staff	6	5	4	3	2	1
34. amount of support for your research by administrative personnel on your staff	6	5	4	3	2	1
35. relevancy of your research to societal needs	6	5	4	3	2	1
36. opportunity for advancement in academic rank through research	6	5	4	3	2	1
37. opportunity for recognition from colleagues through research	6	5	4	3	2	1
38. opportunity for personal growth through research	6	5	4	3	2	1

COMMUNITY INVOLVEMENT ASPECTS - Do not reply to items that are NOT applicable to your work assignment in 1973-74

39. amount of time available to become involved with work related committees	6	5	4	3	2	1
40. amount of time available to become involved with committees of local, provincial, or national professional organizations	6	5	4	3	2	1
41. amount of funds available to become involved with committees of provincial and national professional organizations	6	5	4	3	2	1
42. extent of your share in decisions affecting department affairs	6	5	4	3	2	1
43. extent of your share in decisions affecting local professional organization matters	6	5	4	3	2	1
44. extent of your share in decisions affecting provincial professional organization affairs	6	5	4	3	2	1
45. extent of your share in decisions affecting national professional organization affairs	6	5	4	3	2	1
46. opportunity for advancement in academic rank through involvement in work related committees	6	5	4	3	2	1
47. opportunity for advancement in academic rank through involvement in local, provincial, or national professional organization committees	6	5	4	3	2	1
48. opportunity for recognition from colleagues through involvement in work related committees	6	5	4	3	2	1
49. opportunity for recognition from colleagues through involvement in local, provincial, or national professional organization committees	6	5	4	3	2	1
50. opportunity for personal growth through involvement in work related committees	6	5	4	3	2	1
51. opportunity for personal growth through involvement in local, provincial, or national professional organization committees	6	5	4	3	2	1

13 For each of the work situation aspects listed below, how does WHAT YOU PREFER compare with WHAT ACTUALLY EXISTS?

5

COACHING ASPECTS - Do Not Answer This Section If You Are Not Coaching This Year (1973-74)!!

	Much Less Than What I Prefer	Less Than What I Prefer	No Difference	More Than What I Prefer	Much More Than What I Prefer
1. number of practice hours	1	2	3	4	5
2. amount of time available for practice	1	2	3	4	5
3. number of hours of preparation	1	2	3	4	5
4. quality of physical facilities available for practice	1	2	3	4	5
5. effectiveness of eligibility regulations	1	2	3	4	5
6. freedom of control over team operation	1	2	3	4	5
7. pressure to win from superiors	1	2	3	4	5
8. quality of fellow team coaches	1	2	3	4	5
9. amount of funds available for team activities	1	2	3	4	5
10. quality of available athletes	1	2	3	4	5
11. level of league competition available	1	2	3	4	5
12. opportunity for advancement in academic rank through coaching	1	2	3	4	5
13. opportunity for recognition from colleagues through coaching	1	2	3	4	5
14. opportunity for personal growth through coaching	1	2	3	4	5

TEACHING ASPECTS - Do not reply to items that are NOT applicable to your work assignment in 1973-74.

15. quality of undergraduates receiving degrees	1	2	3	4	5
16. quality of graduates receiving degrees	1	2	3	4	5
17. extent of "skills" content in undergraduate program	1	2	3	4	5
18. extent of "theory" content in undergraduate program	1	2	3	4	5
19. extent of your teaching assignment in the undergraduate program	1	2	3	4	5
20. extent of your teaching assignment in the graduate program	1	2	3	4	5
21. extent of your teaching assignment in activity courses	1	2	3	4	5
22. extent of your teaching assignment in lecture courses	1	2	3	4	5
23. adequacy of facilities for classes	1	2	3	4	5
24. freedom to select course content and teaching methods	1	2	3	4	5
25. relevancy of curriculum to the type of jobs available to degree holders	1	2	3	4	5
26. opportunity for advancement in academic rank through teaching	1	2	3	4	5
27. opportunity for recognition from colleagues through teaching	1	2	3	4	5
28. opportunity for personal growth through teaching	1	2	3	4	5

RESEARCH ASPECTS

- Do not reply to items that are NOT applicable to your work assignment in 1973-74

	Much Less Than What I Prefer	Less Than What I Prefer	No Difference	More Than What I Prefer	Much More Than What I Prefer
29. amount of funds available for research	1	2	3	4	5
30. amount of time available for research	1	2	3	4	5
31. quality of facilities and equipment available for research	1	2	3	4	5
32. amount of encouragement by academic members of staff for you to do research	1	2	3	4	5
33. extent of participation with you in research by colleagues in your field and on your staff	1	2	3	4	5
34. amount of support for your research by administrative personnel on your staff	1	2	3	4	5
35. relevancy of your research to societal needs	1	2	3	4	5
36. opportunity for advancement in academic rank through research	1	2	3	4	5
37. opportunity for recognition from colleagues through research	1	2	3	4	5
38. opportunity for personal growth through research	1	2	3	4	5

COMMUNITY INVOLVEMENT ASPECTS - Do not reply to items that are NOT applicable to your work assignment in 1973-74

39. amount of time available to become involved with work related committees	1	2	3	4	5
40. amount of time available to become involved with committees of local, provincial, or national professional organizations	1	2	3	4	5
41. amount of funds available to become involved with committees of provincial and national professional organizations	1	2	3	4	5
42. extent of your share in decisions affecting department affairs	1	2	3	4	5
43. extent of your share in decisions affecting local professional organization affairs	1	2	3	4	5
44. extent of your share in decisions affecting provincial professional organization affairs	1	2	3	4	5
45. extent of your share in decisions affecting national professional organization affairs	1	2	3	4	5
46. opportunity for advancement in academic rank through involvement in work related committees	1	2	3	4	5
47. opportunity for advancement in academic rank through involvement in local, provincial, or national professional organization committees	1	2	3	4	5
48. opportunity for recognition from colleagues through involvement in work related committees	1	2	3	4	5
49. opportunity for recognition from colleagues through involvement in local, provincial or national professional organization committees	1	2	3	4	5
50. opportunity for personal growth through involvement in work related committees	1	2	3	4	5
51. opportunity for personal growth through involvement in local, provincial, national professional organization committees	1	2	3	4	5

14 For each of the work situation aspects listed below, how does WHAT YOU PREFER compare with WHAT YOU FEEL YOUR FACULTY PREFERENCES.

COACHING ASPECTS - Do Not Answer This Section If You Are Not Coaching This Year (1973-74)!!

	Much Less Than What I Prefer	Less Than What I Prefer	No Difference	More Than What I Prefer	Much More Than What I Prefer
1. number of practice hours	1	2	3	4	5
2. amount of time available for practice	1	2	3	4	5
3. number of hours of preparation	1	2	3	4	5
4. quality of physical facilities available for practice	1	2	3	4	5
5. effectiveness of eligibility regulations	1	2	3	4	5
6. freedom of control over team operation	1	2	3	4	5
7. pressure to win from superiors	1	2	3	4	5
8. quality of fellow team coaches	1	2	3	4	5
9. amount of funds available for team activities	1	2	3	4	5
10. quality of available athletes	1	2	3	4	5
11. level of league competition available	1	2	3	4	5
12. opportunity for advancement in academic rank through coaching	1	2	3	4	5
13. opportunity for recognition from colleagues through coaching	1	2	3	4	5
14. opportunity for personal growth through coaching	1	2	3	4	5

TEACHING ASPECTS - Do not reply to items that are NOT applicable to your work assignment in 1973-74.

15. quality of undergraduates receiving degrees	1	2	3	4	5
16. quality of graduates receiving degrees	1	2	3	4	5
17. extent of "skills" content in undergraduate program	1	2	3	4	5
18. extent of "theory" content in undergraduate program	1	2	3	4	5
19. extent of your teaching assignment in the undergraduate program	1	2	3	4	5
20. extent of your teaching assignment in the graduate program	1	2	3	4	5
21. extent of your teaching assignment in activity courses	1	2	3	4	5
22. extent of your teaching assignment in lecture courses	1	2	3	4	5
23. adequacy of facilities for classes	1	2	3	4	5
24. freedom to select course content and teaching methods	1	2	3	4	5
25. relevancy of curriculum to the type of jobs available to degree holders	1	2	3	4	5
26. opportunity for advancement in academic rank through teaching	1	2	3	4	5
27. opportunity for recognition from colleagues through teaching	1	2	3	4	5
28. opportunity for personal growth through teaching	1	2	3	4	5

RESEARCH ASPECTS

- Do not reply to items that are NOT applicable to your work assignment in 1973-74

	Much Less Than What I Prefer	Less Than What I Prefer	No Difference	More Than What I Prefer	Much More Than What I Prefer
29. amount of funds available for research	1	2	3	4	5
30. amount of time available for research	1	2	3	4	5
31. quality of facilities and equipment available for research	1	2	3	4	5
32. amount of encouragement by academic members of staff for you to do research	1	2	3	4	5
33. extent of participation with you in research by colleagues in your field and on your staff	1	2	3	4	5
34. amount of support for your research by administrative personnel on your staff	1	2	3	4	5
35. relevancy of your research to societal needs	1	2	3	4	5
36. opportunity for advancement in academic rank through research	1	2	3	4	5
37. opportunity for recognition from colleagues through research	1	2	3	4	5
38. opportunity for personal growth through research	1	2	3	4	5

COMMUNITY INVOLVEMENT ASPECTS - Do not reply to items that are NOT applicable to your work assignment in 1973-74

39. amount of time available to become involved with work related committees	1	2	3	4	5
40. amount of time available to become involved with committees of local, provincial, or national professional organizations	1	2	3	4	5
41. amount of funds available to become involved with committees of provincial and national professional organizations	1	2	3	4	5
42. extent of your share in decisions affecting department affairs	1	2	3	4	5
43. extent of your share in decisions affecting local professional organization affairs	1	2	3	4	5
44. extent of your share in decisions affecting provincial professional organization affairs	1	2	3	4	5
45. extent of your share in decisions affecting national professional organization affairs	1	2	3	4	5
46. opportunity for advancement in academic rank through involvement in work related committees	1	2	3	4	5
47. opportunity for advancement in academic rank through involvement in local, provincial, or national professional organization committees	1	2	3	4	5
48. opportunity for recognition from colleagues through involvement in work related committees	1	2	3	4	5
49. opportunity for recognition from colleagues through involvement in local, provincial or national professional organization committees	1	2	3	4	5
50. opportunity for personal growth through involvement in work related committees	1	2	3	4	5
51. opportunity for personal growth through involvement in local, provincial, national professional organization committees	1	2	3	4	5

APPENDIX C

CHIEF ADMINISTRATOR'S QUESTIONNAIRE
AND
COVERING LETTER TO CHIEF ADMINISTRATORS

As suggested in previous correspondence, we are soliciting your assistance in a research project by way of completion of the attached questionnaire.

While we are most cognizant of the many other tasks facing you at the present moment we would appreciate receiving the completed questionnaire at your earliest convenience.

A summary of the findings will be made available to you when the project has been completed.

Thank you.

Sincerely yours

T. L. Maloney
Project Coordinator

M. L. Van Vliet, Dean
Faculty of Physical Education

CHIEF ADMINISTRATOR'S QUESTIONNAIRE

SUPPLEMENTAL TO THE
WORK ENVIRONMENT QUESTIONNAIRE

ADMINISTERED BY

T. L. MALONEY

IN COOPERATION WITH THE DEAN
FACULTY OF PHYSICAL EDUCATION
UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA

1. For how many years has your Department been in existence? Count this academic year as a full year.

_____ years

2. For how many years have you held the position of Chairman? Count this academic year as a full year.

_____ years

3. How many full-time academic staff members are in your Department?

4. How many of your full-time academic staff members possess:

only a bachelors degree: _____

a masters but not a doctorate degree _____

a doctorate degree _____

5. What type of programs does your Department currently offer? Please check all appropriate items listed below.

_____ program(s) leading to a BACHELORS degree

_____ program(s) leading to a MASTERS degree

_____ program(s) leading to a DOCTORATE degree

6. What is the total full-time enrollment in each of the programs currently offered?

Bachelors Degree program: _____ students

Masters Degree program: _____ students

Doctorate Degree program: _____ students

7. What level of importance do you attach to each of the following general aspects of work as functions of your Department?

	<u>VERY</u>	<u>QUITE</u>	<u>MODERATE</u>	<u>LITTLE</u>	<u>NONE</u>
i) Coaching	5	4	3	2	1
ii) Community Involvement	5	4	3	2	1
iii) Research	5	4	3	2	1
iv) Teaching	5	4	3	2	1

APPENDIX D

FOLLOW-UP LETTERS

March 17, 1974

Some weeks ago I forwarded to you a number of questionnaires with a request that they be distributed to all of your full-time academic staff members.

To date the response has been very good and I would like to express my sincere appreciation to you and your staff for the considerable cooperation you have given to the project.

In an effort to increase the percentage return I would ask one further favour of you. Would you kindly distribute one of the enclosed reminder letters to all staff members who originally received the questionnaire?

Again, my thanks to you for your assistance!

Sincerely yours

T. L. Maloney
Project Coordinator

March 18, 1974

Dear Staff Member:

A short time ago you received a "Work Environment Questionnaire" and were asked to complete and return it to myself.

The purpose of this letter is two-fold: 1) to offer my sincere thanks to the many academic staff members across Canada who have responded so promptly, and 2) to respectfully request those who have not yet had the time to respond to complete the questionnaire and return it at your earliest convenience.

While the response has been very good to this point we are striving to gain an even higher percentage return for obvious reasons.

I am fully aware of the many other demands on your time and therefore I am greatly appreciative of early responses and will also be greatly appreciative of further responses.

In view of the fact that I am unable to record individual staff member responses I must resort to a "blanket thank you."

Your assistance has been most helpful!

Sincerely yours

T. L. Maloney
Project Coordinator

APPENDIX E

TABLES

TABLE 37

UNIVERSITIES INCLUDED IN THE ORIGINAL SURVEY

ACADIA UNIVERSITY
DALHOUSIE UNIVERSITY
LAKEHEAD UNIVERSITY
LAURENTIAN UNIVERSITY
MCGILL UNIVERSITY

MCMASTER UNIVERSITY
MEMORIAL UNIVERSITY OF NEWFOUNDLAND
QUEEN'S UNIVERSITY
SIMON FRASER UNIVERSITY
ST. FRANCIS XAVIER UNIVERSITY

UNIVERSITY OF ALBERTA
UNIVERSITY OF BRITISH COLUMBIA
UNIVERSITY OF CALGARY
UNIVERSITY OF GUELPH
* UNIVERSITE DU LAVAL

UNIVERSITY OF LETHBRIDGE
UNIVERSITY OF MANITOBA
UNIVERSITY OF MONCTON
* UNIVERSITY OF MONTREAL
UNIVERSITY OF NEW BRUNSWICK

UNIVERSITY OF OTTAWA
* UNIVERSITE DU QUEBEC A MONTREAL
* UNIVERSITE DU QUEBEC A TROIS RIVIERE
UNIVERSITY OF SASKATCHEWAN
UNIVERSITY OF SASKATCHEWAN, REGINA CAMPUS

* UNIVERSITE DE SHERBROOKE
UNIVERSITY OF TORONTO
UNIVERSITY OF VICTORIA
UNIVERSITY OF WATERLOO
UNIVERSITY OF WESTERN ONTARIO

UNIVERSITY OF WINDSOR
YORK UNIVERSITY

* Respondents from these universities were eliminated from the study.

TABLE 38

CHI SQUARE ANALYSIS OF THE SATISFACTION SCORES FOR THE 'JOB AS A WHOLE' AND THE DISCREPANCY BETWEEN ADMINISTRATOR'S AND RESPONDENT'S SELF-REPORTED LEVEL OF SATISFACTION FOR EACH GENERAL AREA OF WORK

WORK AREA	CHI SQUARE	df	SIG.
a) COACHING	7.3646	8	0.4979
b) COMMUNITY INVOLVEMENT	7.6480	8	0.4686
c) RESEARCH	9.6330	8	0.2917
d) TEACHING	14.7714	8	0.0637